THE

ARCHITECTURAL

FORUM

INCLUDING "BUILDING MONEY"

MAY, 1934

CALHOUN COLLEGE, YALE . . . MACHINE ART . . . HUNGARY

This is one of a series of pages devoted to the modern treatment of certain interesting details in construction.

●

The Van Der Leeuw Research House, overlooking Silver Lake in Los Angeles, California. Architect: Richard J. Neutra. The products of Libbey • Owens • Ford used exclusively in glazing.

GLASS *dominates design*

A peek at the boards of many leading architects discloses a new and refreshing trend in residential plans. Windows . . . more windows, bigger windows, picture windows, corner windows . . . are the keynote of construction. The same increased use of glass is apparent in the interior, as well. More space is specially planned for mirrors; glass is specified for closet doors and shelves; provision is made for glass screens and panels, both clear and obscure, in kitchens, baths and dining alcoves. In reality, a new type home has been created . . . a home dominated by glass . . . clear, fine, flat glass . . . the product of Libbey•Owens•Ford.

LIBBEY·OWENS·FORD GLASS CO., TOLEDO, OHIO, *manufacturers of Highest Quality Flat Drawn Window Glass, Polished Plate Glass and Safety Glass; also distributors of Figured and Wire Glass, manufactured by the Blue Ridge Glass Corp. of Kingsport, Tenn.*

LIBBEY · OWENS · FORD

QUALITY GLASS

L O F

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Lady Luxury PRODUCTS

The VANADOIR

A NEW CONCEPTION IN PLUMBING FURNITURE

Designed for Specification by the Architect and Installation by the Plumbing Trade . . .

THE VANADOIR has been created to meet the demand of architects for a greater distribution of lavatory facilities in plans for modern homes and for more practical dressing table appointments in bathrooms.

The VANADOIR is a single piece of furniture. It effects an unusual but practical combination of a well designed dressing table of fine waterproofed furniture steel, with a vitreous china washbowl and plate glass mirror giving the dressing table luxurious appointments including running water.

With no special setting required, the VANADOIR may be placed with safety and good taste on wood or carpeted floors.

The Princess Model VANADOIR is designed for average bathrooms, small dressing rooms, powder rooms and guest rooms.

The Moderne Model is designed for installation in larger bathrooms, Master bedrooms, powder rooms and women's retiring rooms in clubs, hotels and semi-public buildings.

The installation of the VANADOIR is simple and practical and meets the critical requirements of the architect.

Complete specifications, prices, construction details and typical installation data will be gladly furnished architects on request.

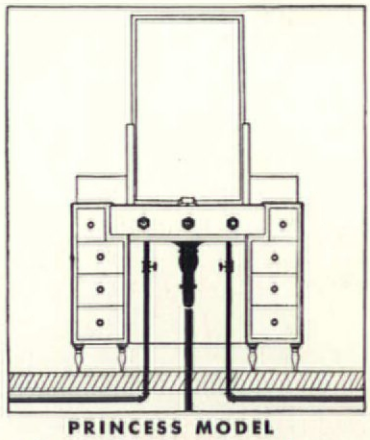
Lady Luxury Division • Excelso Products Corp., 1807 Elmwood Ave., Buffalo, N. Y.

Division of American Radiator—Standard Sanitary Corp.

SEE SWEETS P. 298 - 299 . . .

PRINCESS MODEL

MODERNE MODEL
And Lady Luxury Chair



PRINCESS MODEL
Showing Plumbing Connections

Conventional Plumbing Practice Applies to Installation of The VANADOIR
Water and waste connections are made through floor or wall as desired.
Access panel beneath the lavatory completely conceals all piping.

LADY LUXURY DIVISION, EXCELSO PRODUCTS CORPORATION,
1807 Elmwood Avenue, Buffalo, N. Y.

Gentlemen: Kindly provide us with complete data for Lady Luxury VANADOIR Combinations.

Firm _____
Address _____
Individual _____

THE ARCHITECTURAL FORUM

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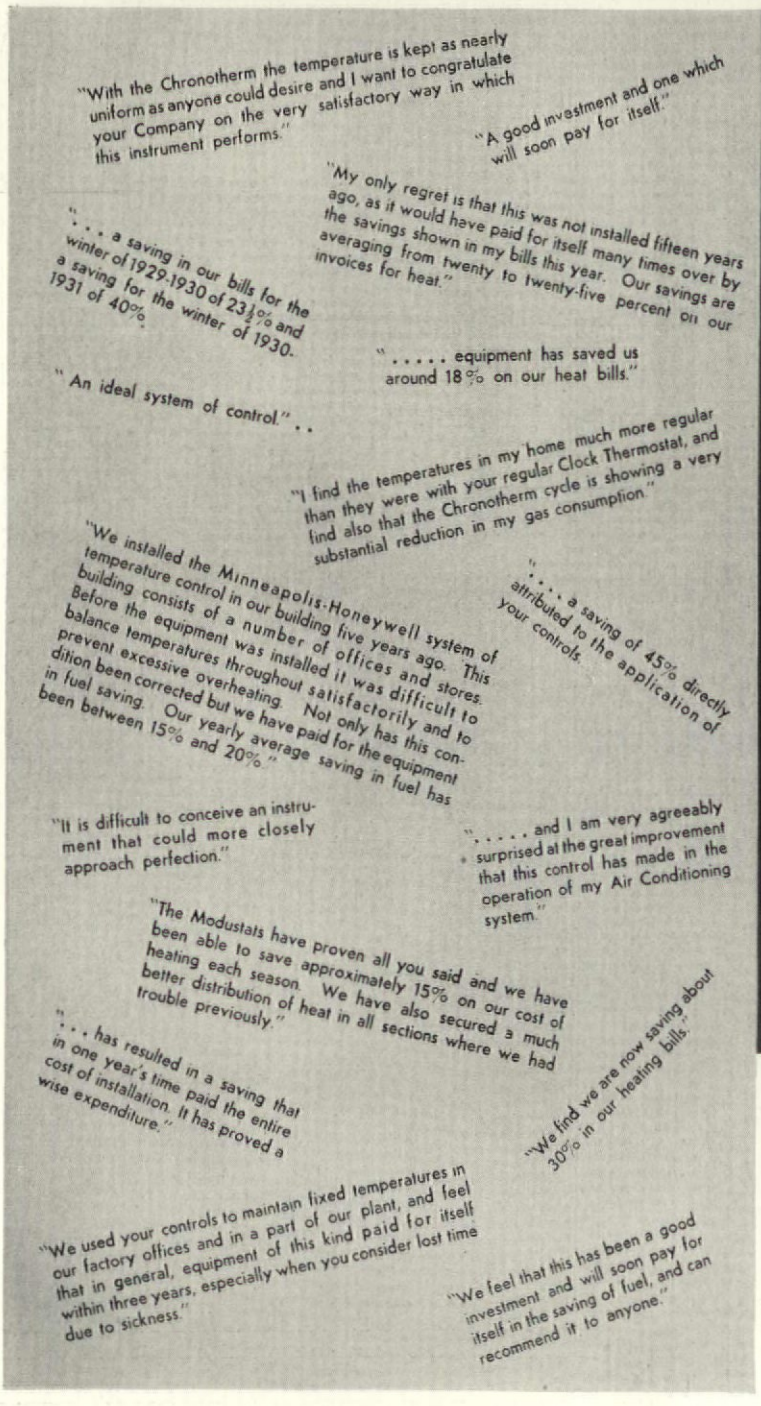
VOLUME LX
Number 5

Modernization . . . THAT PAYS



WHEN you modernize, be sure that your investment will pay for itself . . . either in money saved or through health, comfort or convenience . . . An investment in a Minneapolis-Honeywell Modutrol System pays for itself time and again, both through providing proper temperature and air conditioning, and through reducing fuel expenditures, as these excerpts of letters from executives, plant engineers, and building owners and managers testify. There is a Modutrol System available for every type of building, old or new, large or small. The Minneapolis-Honeywell Engineer in your city can show you why your building or buildings should be Modutrol System equipped. Minneapolis-Honeywell Regulator Co., 2740 Fourth Ave. So., Minneapolis, Minn. Branch or distributing offices in all principal cities.

MINNEAPOLIS HONEYWELL

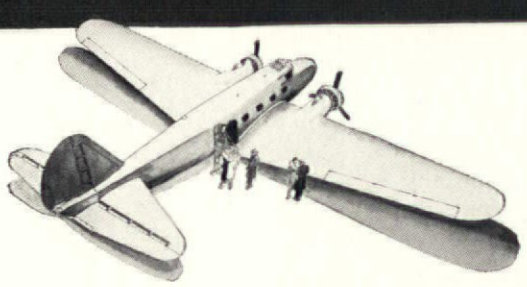
Control Systems

RECOVER RIGHT WITH Barrett . . . the World's finest Roof

ADMINISTRATION BUILDING
Shushan Airport, New Orleans, La.

73,600 sq. ft. of 20-year bonded Barrett Roofs protect this modern building. Owners: Board of Levee Commissioners of the Orleans Levee District. Arch.: Weiss, Dreyfous and Seiferth, Inc. Gen'l Cont.: Caldwell Brothers and Hart. Rfg. Cont.: Holzer Sheet Metal Works, Inc. All of New Orleans.

for SHUSHAN . . . the World's finest Airport



SURPASSING London's Croydon or Berlin's Templehof, is the new Shushan Airport, New Orleans, which was formally dedicated during the recent Mardi Gras season. Its impressive Administration Building with control tower, office, hotel and restaurant facilities was designed as the most modern expression of airport development.

In the matter of roof protection the builders of Shushan borrowed from the experience of foremost architects and engineers who have consistently specified and used Barrett Roofings. The weather-safe, fire-safe Barrett Roof that protects Shushan is definite assurance against impaired or interrupted service due to any roof defect.

Barrett Roofs are the result of eighty years of successful research and manufacturing experience. They are the first choice of leading architects, engineers and building owners . . . everywhere.

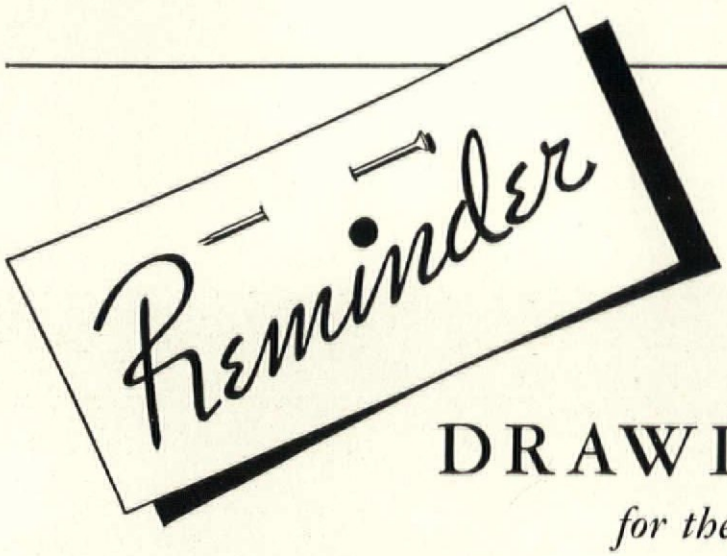
Whether yours is an old or a new building, there is no substitute for Barrett Roof protection. Recover right . . . the Barrett way. Consult with your local Barrett Approved Roofer, or write us for information on any roofing or waterproofing problem.

THE BARRETT COMPANY

40 Rector Street, New York, N. Y.
2800 So. Sacramento Avenue, Chicago, Ill.
Birmingham, Alabama

In Canada: The Barrett Company, Ltd.
5551 St. Hubert Street, Montreal, P. Q.

Panorama of Shushan Airport, Moffett Hangar No. 1 (left), Lindbergh Hangar No. 5 (right), and the Administration Building (center) are all Barrett-roofed



DRAWINGS

for the

PENCIL POINTS — FLAT GLASS INDUSTRY ARCHITECTURAL COMPETITION

for the design of a Detached Residence will be accepted up to

JUNE 4, 1934

•

THIS competition is authorized by the Pencil Points Press, Inc., publishers of *Pencil Points*, and sponsored by the Plate Glass Manufacturers of America, the Window Glass Manufacturers Association and the Rough and Rolled Glass Manufacturers of America. It is conducted by Russell F. Whitehead, A.I.A. Professional Advisor. It is open to all in the profession, Institute members, under a ruling by the Institute Committee on Competitions, being free to enter. The closing date is June 4, 1934. As the purpose of the competition is to secure evidence of the imagination and skill of the competitors rather than to obtain elaborately prepared drawings, only one sheet of drawings is required. The high professional standing of the seven distinguished practitioners who have accepted the invitation to act as judges gives assurance that the relative rating of the contestants will have the concurrence of the profession at large, or, at least, that it will not be dissented from in any marked degree.

THE AWARDS

29 prizes, aggregating $3,100

First Prize	$1,000.00
Second Prize	500.00
Third Prize	250.00
Fourth Prize	100.00
25 Mentions, each	50.00

•

THE JURY

David Adler ..... *Chicago*
W. Pope Barney ..... *Philadelphia*
Otto R. Eggers ..... *New York*
Louis La Beaume ..... *St. Louis*
J. Lovell Little ..... *Boston*
Louis Stevens ..... *Pittsburgh*
David J. Witmer ..... *Los Angeles*

Reprints of the Competition program may be obtained from any of the leading architectural journals or from the sponsors

THE

FORUM OF EVENTS

Esther Born

The Architectural Forum—Better Homes in America Photographic Exhibit of 37 Prize Winning Designs in the Annual Small House Architectural Competition, at Rockefeller Center, New York, opened with a broadcast over WJZ on April 12. It closes May 12

Not often is architecture presented to radio audiences. The five speakers on the air were (left to right): Dr. James Ford, Mrs. William Brown Meloney, Dr. Ray Lyman Wilbur, Roger H. Bullard (1933 Gold Medal Winner), and Kenneth K. Stowell

The bronze medal winners who received their awards from Dr. Wilbur were (left to right): O. Kline Fulmer, Edwin B. Goodell, Royal Barry Wills, Reinhard M. Bischoff, Roger H. Bullard (Gold Medal), Milton L. Grigg, Martin L. Beck, Frank J. Forster, and Dwight James Baum

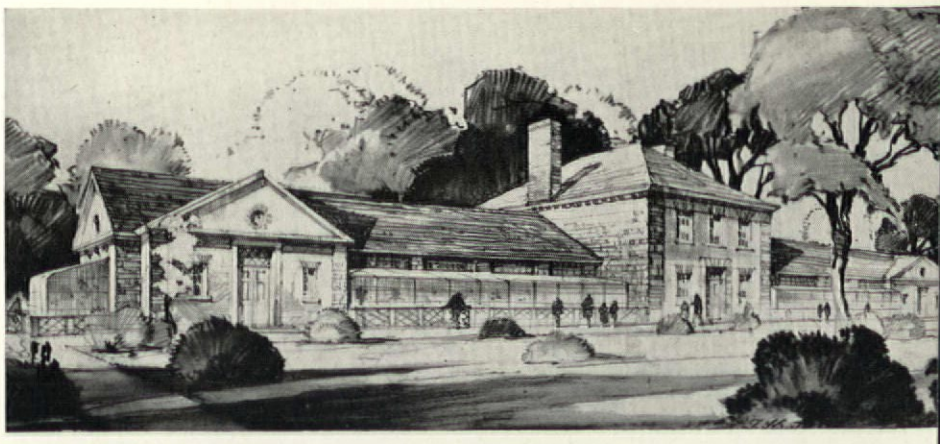
WINNERS AND BROADCASTERS

At a time when the architect's connection with the small house is being challenged, The Architectural Forum and Better Homes in America opened an exhibit with a radio broadcast proving the value of architectural services. Through the courtesy of the National Broadcasting Company the presentation of the gold medal to Roger H. Bullard, winner of the 1933 Annual Small House Architectural Competition, was made on April 12 over station WJZ by Dr. Ray Lyman Wilbur, who said: "Up to the present, America has been built up by young couples owning their own homes. In many quarters it is felt that economic security will not return to the nation until this is again the case."

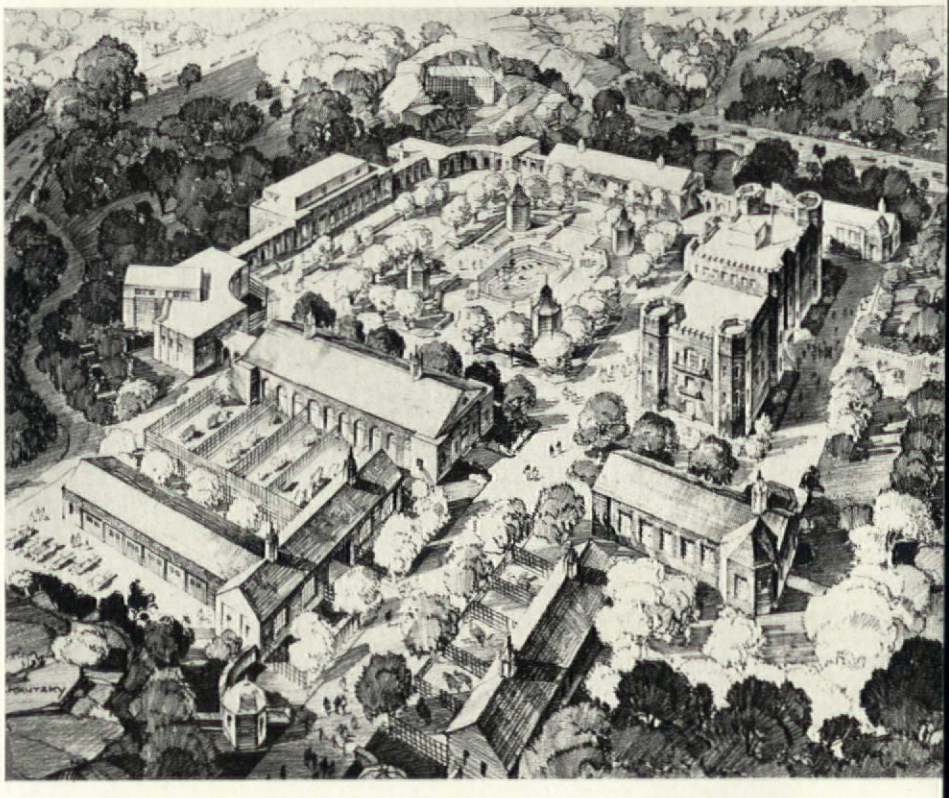
The broadcast was followed by a preview of the exhibit, which was designed by Ernest Born. It will remain open until May 12 (Shop 17, West Concourse, Rockefeller Center, New York). Small houses published in the March and April issues of The Architectural Forum were part of the 1933 entries. All the prize winning designs in each of the competitions held to date are included in the exhibit (1930, 1931, 1932, 1933).

The Shaw Memorial Fountain in its new position at the west end of Bryant Park

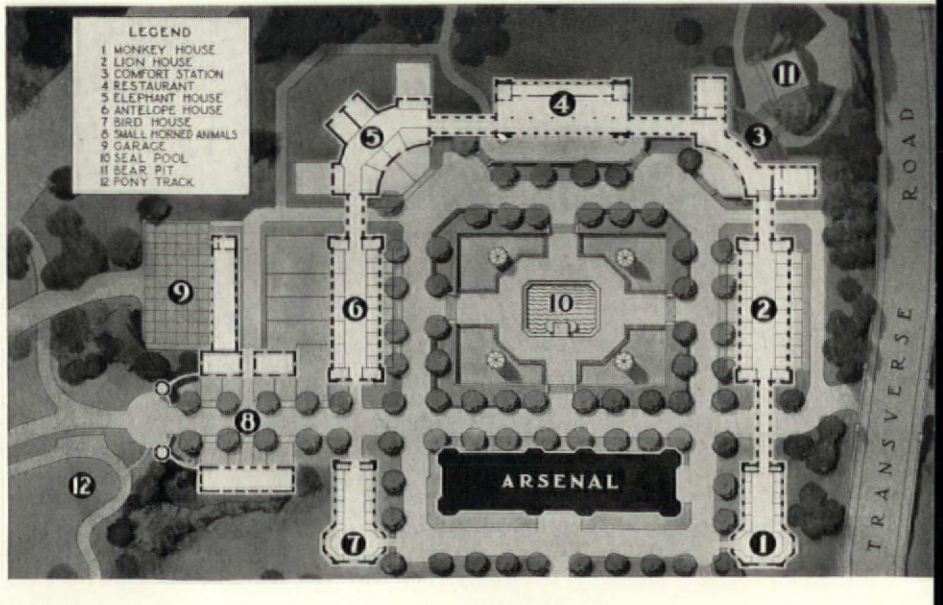
New monkey house for Central Park zoo



Barrett Park (Staten Island) zoo for smaller animals. With its study facilities, this is an unusual experiment in tying up a park with school work. Plan opposite

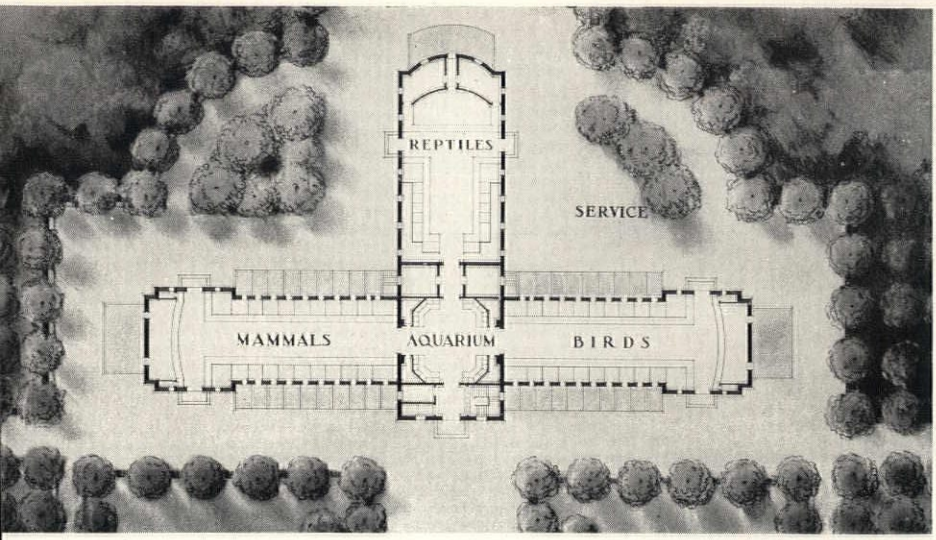


The style of the Central Park zoo harmonizes with the old Arsenal building. Below: Plan of the new Central Park zoo

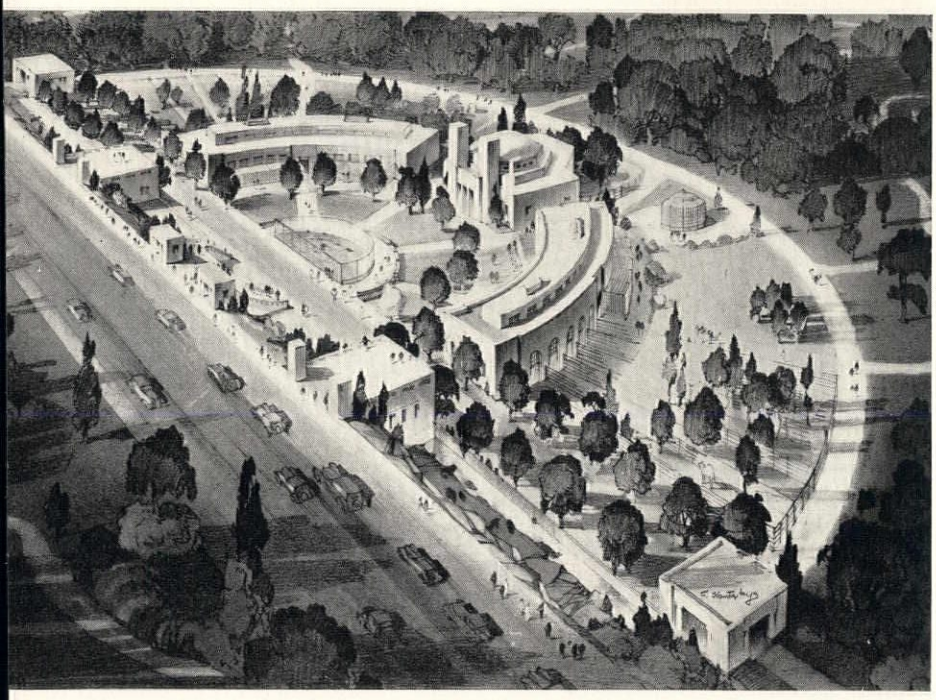


CWA DESIGNS FOR NEW YORK PARKS

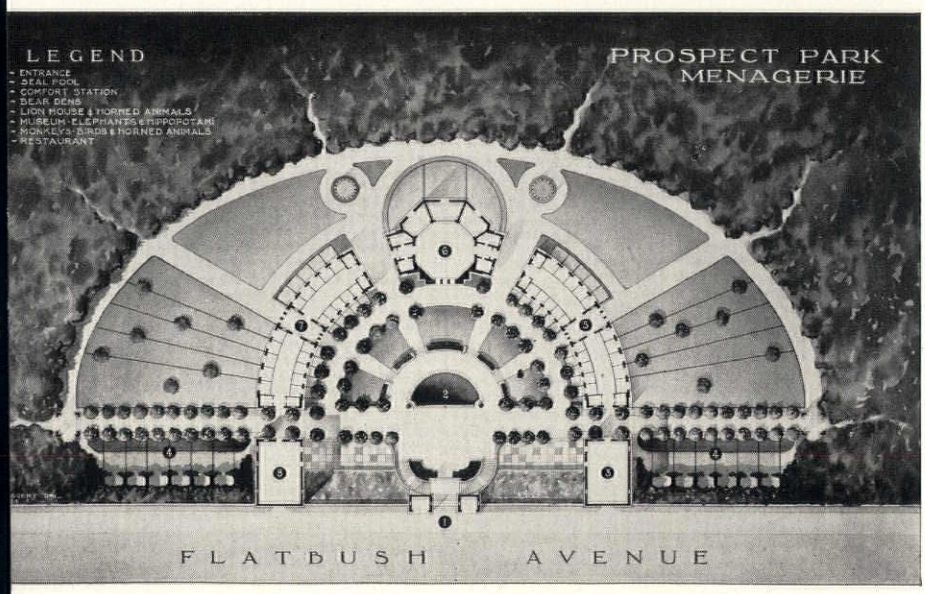
RENDERINGS on this and the opposite page include several of the more important CWA architectural projects for the New York metropolitan area done under the general direction of Aymar Embury II, consulting architect, the Department of Parks. Plans were drawn up in the old Arsenal Building in Central Park, which has been turned into a headquarters for the necessarily large corps of architects and draftsmen. Construction on all the schemes here illustrated is progressing according to schedule and should be completed in the course of the summer. Landscaping is by Major Gilmore D. Clarke. As the Board of Estimate and Apportionment approves the closing of four streets, the Chrystie-Forsyth Street scheme will be promptly carried through to completion. The speed with which all these plans were drawn up is indicative of the fine organization and *esprit de corps* which Mr. Embury's leadership has inspired.



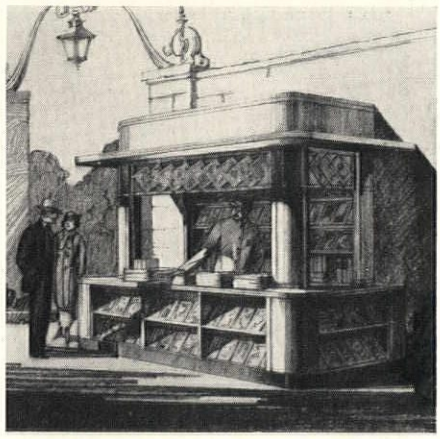
Plan of the Barrett Park zoo, illustrating how the four main forms of life are included within the limits of one building



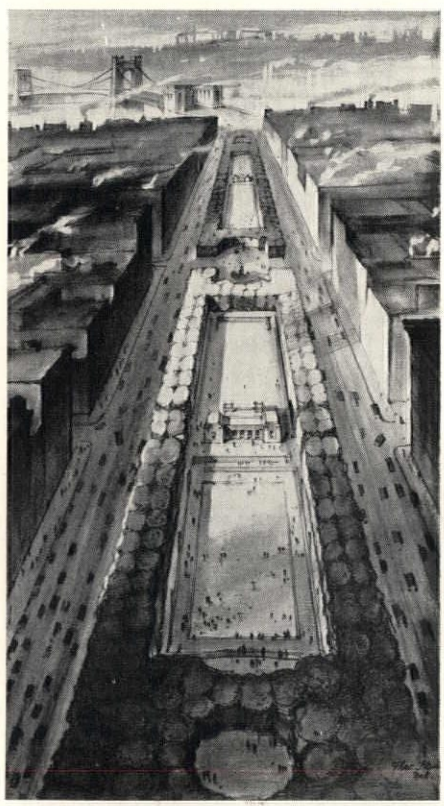
The Prospect Park zoo in Brooklyn. A sunken water moat barrier is used instead of a grilled cage for exhibiting bears. The site was originally a duck pond



Present old type of newsstand near park entrances in New York



New type of white metal newsstand



The Chrystie and Forsyth Street project which involves closing four streets to vehicular traffic

Six Architects in Search of Authenticity . . .

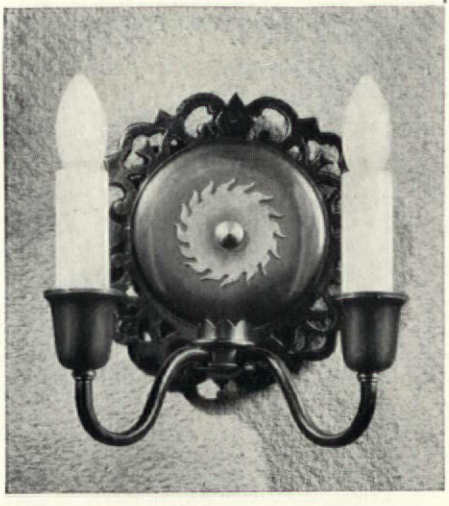
. . . write their specifications for the design and manufacture of Residential Lighting Fixtures . .

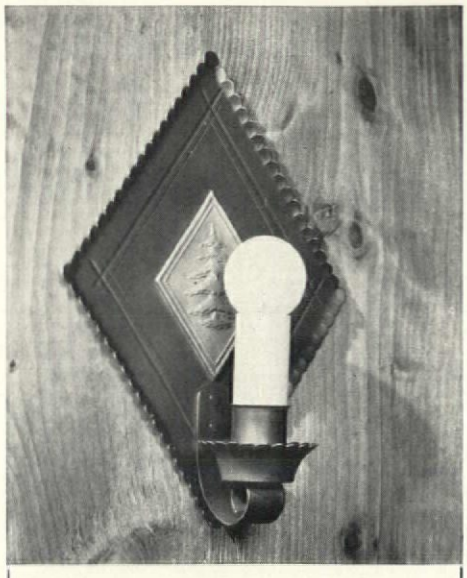
Architect No. 1

"In planning Early English homes I waste more time trying to find appropriate lighting fixtures than in the selection of any other item. I sometimes feel it is not worth the effort and I might better design all the fixtures and have them custom-made unless some manufacturer will produce *authentic* designs in good taste."

•

Chase agrees! . . . and presents for the approval of architects the Jacobean sconce shown below as typical of the many distinctive and authentic fixtures now being created by Chase in the Early English period.





Architect No. 2

"In the selection of lighting fixtures, I often view hundreds of designs to find one which suits my purpose. So many are dull copies of inferior precedent, or 'jazzed up' with anachronistic excrescences that I must automatically discard them. Why doesn't some manufacturer find a designer who would adapt the best of the old models and, catching their spirit, interpret it for modern use?"

•

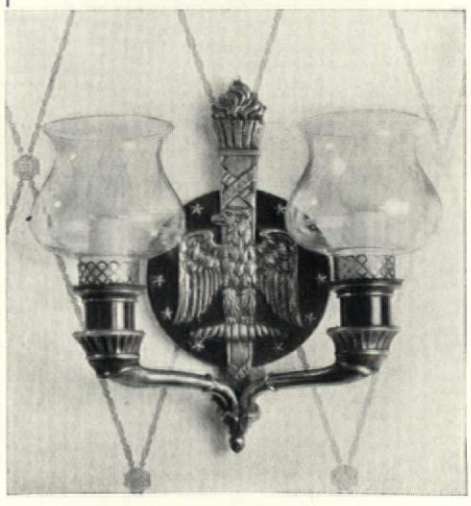
Chase has ! . . . and offers as refreshing evidence the Pine Tree Shilling sconce shown above, inspired by the famous Massachusetts coin of 1652, one of the many truly authentic designs soon to be offered by Chase in its Early American group.

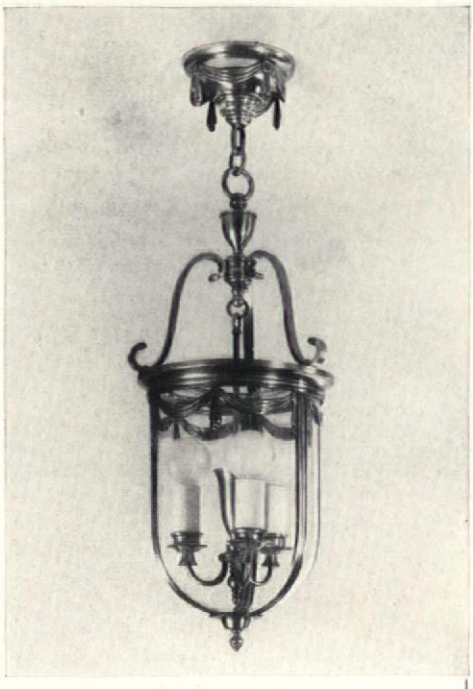
Architect No. 3

"To me, style selectivity is the important consideration in specifying lighting fixtures. In my work I strive for a freshness of design based on precedent, and I want to find the same characteristic in the lighting fixtures I choose. I am not content with mere archaeological reproductions either in my own design or in lighting fixtures, which are part of the architectural ensemble."

•

Chase will never be content with "mere reproductions". Convincing proof is the brilliantly designed bracket shown below, inspired by a McIntire eagle—characteristic of the imaginative but thoroughly authentic Federal fixtures created by Chase.





Architect No. 4

"I would like to see improvement in the basic materials and structural aspects of the lighting fixtures I must perforce choose for residences I design. All too many fixtures seem built down to a price; are flimsy, insecure. I don't expect the fixtures I choose to show rust spots after a year's use, nor to find socket-arms bending and breaking because of cheap basic construction. Lighting fixtures should be of permanent materials with permanent finishes."

•

Chase Brass will be the basic material of all Chase Fixtures. Construction, finish and workmanship will be of like quality, as illustrated by one of the many authentically designed fixtures in the Georgian period, shown above.

Architect No. 5

"Modern interiors demand fixture design of an entirely different nature from the candle or gas era. It is high time we had fixtures designed for electric lighting as such. This does not mean that they need be bizarre. In fact, the best of the so-called 'modern' work is that which is closest to the ideals of the classic. The few attempts made to supply the architect with appropriate fixtures for modern interiors are far from adequate. They show little intelligent knowledge of the classic forms or decorative restraint so essential to authenticity in such fixtures."

•

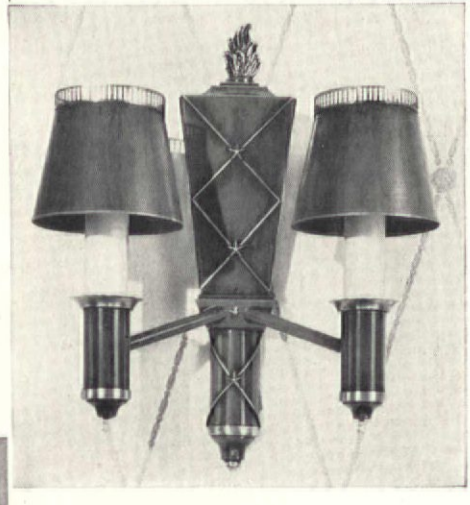
Chase accepts the challenge! Its answer consists of over twenty Modern designs brilliantly conceived in chromium and frosted glass, exemplified by the distinctive bracket shown below.

Architect No. 6

"I am not a lighting fixture designer, except by force of circumstances. In the Empire work I have done recently, I have not been able to use stock fixtures simply because those available show no more appreciation of the spirit, character and decorative significance of the period than does a ten-day Cook's Tour through France."

•

Chase heartily agrees! As to its own appreciation of Empire, concrete evidence is had in the true example shown below—characteristic of Chase authentically designed Empire Fixtures in traditional colors.



INVITATION

To all architects in search of authenticity in lighting fixtures Chase extends a cordial welcome to view a complete showing of Chase Lighting in Chase Tower, 10 East 40th Street, New York, during the latter part of May.

CHASE

CHASE BRASS & COPPER CO.

· INCORPORATED ·

Factories:
Waterbury, Conn.

Chase Tower Showroom
10 East 40th St., New York

LETTERS

Washington Opinion

Forum:

There is more real information about residential construction in the current April issue of THE ARCHITECTURAL FORUM than in any publication which has come to my attention in a good many months. It is a great number and you have my congratulations.

F. STUART FITZPATRICK, *Manager*
Chamber of Commerce of the United States of America
Washington, D. C.

Matthew VII, 24–27

Good Friday, 1934.

Forum:

We need, like most people, to remain within quite definite economic limitations, but I cannot but believe that those engaged in the building industry, from architects down, will presently discover it profitable to do something about the needs of those millions who would build if they could sensibly invest some $5,000 in the sort of house which present knowledge and materials would supply for present day needs.

We are looking for sensible modern plans for a house which takes for granted modern problems of domestic service in that it aims at as little space as a family requires for its civilized needs, avoiding unnecessary stairs and other wasted motion and energy, and taking advantage of as much labor saving equipment as has been demonstrated to be economically practical under modest budgets.

ERIC H. THOMSEN, *Minister*
Keene Valley, N. Y.

A Tall Order

Forum:

As one very keenly interested in the subject of advertising for architects, may I express my gratitude for the series of ads you have been running in *Time* and *Fortune* magazines.

I believe that the architect's emancipation and salvation are dependent largely upon educating the public through paid publicity. There are several obstacles in the way. One is the traditional one that architects must not advertise, that it is undignified; and that the ordinary advertising certainly is from our standpoint. Another is that advertising costs money, and the right kind — the only kind the architect can afford to consider — is expensive and the results intangible and slow of realization. . . .

The subject seems to call for special treatment, the services of an expert; one who is familiar with the work of the architect; who knows his problems and his limitations and who is able to write top notch advertising copy; a tall order but not hopeless. Yours, I think, are among the best I have seen.

While writing this I have been called upon to take advertising space in a local daily on account of a small job just finished for the Honolulu agent of the Ford Motor Co. I am particularly well pleased with the copy. . . .

Why We Employed an Architect

HENRY FORD is credited with a three-word answer to the question "How do you do it?" The answer was: "Organize, deputize, supervise."

Ford knows better than to deputize the machine shop to design a motor car. He sought and employed the best designers available. You see the result in the Ford car of today.

When we needed an addition to the Universal Motors building, home of the Ford car in Honolulu, we knew better than to deputize the mechanical, sales or business department to design the building and supervise its construction.

That, we figured, was a job for an architect.

You see the result in our new building. Hart Wood, the architect, relieved us of all worry over the thousand and one problems connected with building and saved us money besides.

To anyone who contemplates building anything from a cottage to a cathedral we can heartily recommend the services of an architect. Our experience leaves no doubt that beauty, convenience and economy will be the consequence.

UNIVERSAL MOTORS, Ltd.

Ford

In closing I want to express my appreciation for THE FORUM. It is one of the very few magazines that I have felt indispensable during the past four years.

HART WOOD
Honolulu, Hawaii

Uncle Sam's Private Architects

Forum:

Your reference to the elimination of some features of design, under what you apparently understand as a recent ruling . . . touches on the matter of standard type plans. Such a procedure has been used by the Treasury Department to a certain extent for many years. . . . The Department has already had between 300 and 400 projects assigned to private architects and will continue to engage outside architectural firms for the larger buildings of monumental character and other classes wherever such employment will be in the interest of the Government.

W. E. REYNOLDS
Treasury Department
Washington, D. C.

Skål!

Forum:

I am glad to have this opportunity to compliment you on the very interesting manner in which the Swedish section [of the December ARCHITECTURAL FORUM] has been edited. Considering the interest which American architects are taking in Swedish architecture, I am certain that this section will be well received as it demonstrates the latest contributions to modern Swedish architecture.

BIRGER NORDHOLM
Swedish State Railways

Art, not Music

Forum:

Recently I received a March issue which states that this house (an honorable mention winner in the Better Homes in America Competition) was built for a Professor of Music in Princeton. This statement is misleading since the house belongs to Professor Ernest T. DeWald who is teaching art and archæology in Princeton University and is just interested in music. . . .

MARTIN L. BECK
Princeton, N. J.

Adverts

Forum:

I am an old subscriber to THE FORUM, a paper which I admire very much, and have bound regularly for future reference.

Its changes of format are always interesting, as, like most American magazines it rarely stays put and is always adventuring into new fields.

There is one point I should like to bring to your notice. For those people like myself who have it bound into volumes it is very annoying to have the adverts mixed up with the reading matter as occurs in the latest numbers at the end. No bound volume is satisfactory under these conditions.

Would it not be possible for you to continue as you used to do and keep the adverts to the front and back exclusively? In every other way THE FORUM is its own excellent self.

I. L. JAMES
Wirral, England

Unlike general magazines, the "adverts" (thank you, Mr. James) in a professional or technical journal are generally considered of permanent value over and above a passing interest. Not all FORUM adverts deserve this encomium, but many do. On the average, architects find the present FORUM format acceptable. If any agree with subscriber James, their protests are awaited. — ED.

Alone

Forum:

In your March issue you have published a photograph of the Ogden Grille with us listed as architects associated with Gordon S. Gundling.

Please let it be understood that unless specifically stated we are practicing alone under the name as headed on this letter.

HERBERT SOBEL
J. ARTHUR DRIELSMA
Chicago, Ill.

Announcing....

WALSEAL

(Patent applied for)

THREADLESS BRASS FITTINGS

....the surest and fastest way of making a tight joint

Every quality desired for joining a non-ferrous pipe and fitting is incorporated in Walseal Fittings. The brazing alloy, "Sil-Fos", is incorporated as a ring in each opening of a Walseal Fitting. You merely slip the pipe into the fitting—apply oxyacetylene flame and when the white Walseal ring appears, a perfect joint has been made.

It is impossible to overheat the brazing alloy. The wrong brazing alloy cannot be used as Walworth builds the alloy into every Walseal Fitting and provides the proper quantity so that there is no excess to plug the line.

The finished Walseal joint—bronze or copper—is stronger than the pipe itself. It's vibration proof, corrosion-resistant, and will not creep—cannot pull apart under any temperature to which bronze or copper pipe can safely be subjected.

Last, but not least, Walseal Fittings are the only threadless bronze fittings made for iron pipe size brass pipe or extra heavy brass pipe (Walseal Bronze Fittings are available in extra heavy patterns). However, if economy is of primary importance, thin wall copper tubing I.P.S.O.D. can be used.

WALWORTH

VALVES FITTINGS and TOOLS
Backed by 91 Years' Service

WALWORTH COMPANY
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Absorbex in the ceiling of
Calhoun College, Yale University.
Architect: John Russell Pope
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THE
ARCHITECTURAL
FORUM

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VOLUME LX NUMBER FIVE

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A DIFFICULT PROBLEM SOLVED

THE remaining days of the school year bring difficulties to school authorities and teachers. Bright spring days make boys and girls restless and difficult to control. They desire to be out-of-doors in natural surroundings rather than in the artificial environment of the school classroom.

It requires the best from teachers to keep the children attentive and it is agreed that every effort should be made to assist them with this task. The engineers of The Herman Nelson Corporation have always kept this problem before them and have worked toward its solution until today Herman Nelson units provide the maximum in cooling capacity. This cooling capacity goes a long way towards preventing overheating in classrooms on spring days when the bright sun of spring months combines with the heat from the pupils to cause indoor temperatures to climb, although outdoor temperatures may be quite low.

The high velocity vertical jet discharge of the Univent and the Her-Nel-Co Air-Conditioner makes possible the introduction into the classroom of low temperature outdoor air when it is necessary for cooling. Ventilating units which lack the high velocity vertical jet, must limit the introduction of this cool outdoor air in order to prevent drafts. If you are considering the purchase of school air-conditioning equipment we suggest that you have a Herman Nelson representative explain the merits of the Her-Nel-Co Air-Conditioner and the Univent, as this equipment makes possible the maintenance of a desirable temperature without danger of drafts.

Herman W. Nelson
PRESIDENT

THE HERMAN NELSON CORPORATION

Heating, Ventilating and Air-Conditioning Equipment for Schools

MOLINE, ILLINOIS

THE EDITOR'S FORUM

NEW PLAN, NEW PRACTICE

How can architects best serve in the Administration's latest plan for releasing billions of dollars of private credit for home building and modernizing? This is a prime question for the A.I.A. convention this month, for the future direction of architectural practice, ethics, standards and business organization will be profoundly affected by the answer. The answer must be forthcoming immediately and from architects themselves and through the action of the A.I.A. which is still the only recognized spokesman of the profession. Will the contemplated construction be undertaken with architects playing a leading rôle by exercising some control in the granting of loans and by planning, designing, specifying and supervising the construction?

Will the A.I.A. make sure that the architect is cast in this rôle? Will it enlist at once all the elements of the building industry which are interested in quality construction and sound planning? Or, will the hoped-for credits be expended without benefit of architects and through the speculator and jerry builder? The Administration's plans are still in the formative stage and present the opportunity of prompt and definite action on the part of the A.I.A. to participate in the formation of the policy and procedure to be set up. The Administration must be made to realize that the planning and supervision of the competent architect is the only possible guarantee of the maximum value of the loans which the government will insure under this proposed plan.

The plan shows that Administration has its eye very definitely on resuscitating the heavy industries, especially home construction, as the next big step toward the recovery of the status quo ante. It has already sent up carefully prepared trial balloons in the form of press releases explaining in principle the gigantic scheme to stimulate home building and modernizing through a nation-wide campaign and organization. The heart of the scheme is government insurance of real estate loans. It is hoped that this new deal of building money will put at least a billion and a half dollars to work by next January.

A thoughtful reading of this most far-reaching proposal (discussed in detail on page 386 of this issue) will reveal implications that will affect every architect in the country if it becomes a major Administration measure and is made law.

The revision of the entire method of financing house construction is the most promising definite contribution to reviving home building. It would reduce the present excessive cost of home owning and provide a sounder basis for both borrower and lender. Certainly this should give an impetus to prospective home builders, for the financing problem is now the greatest deterrent to construction.

Naturally, questions of potentiality, as well as of policy and procedure, must be settled before the plan is submitted to Congress. Of these the first would be to determine what agencies will be willing to make unsecured loans up to $2,000 to home-modernizers backed by government insurance up to 10 or 20 per cent of possible loss? And its corollary, how many home owners can be persuaded by the campaign to borrow small amounts in short term loans for the purpose of repairs or modernizing?

In the realm of new house construction the potential effective demand, raised as it would be by the new financing plan, is still dependent on income and employment trends among prospective owners. This demand must be studied in the light of the Real Property Inventory now being tabulated, which should reveal the extent and location of residential shortages. Architects can assume that the Administration has answered these questions to its own satisfaction in proposing the plan.

There remains the necessity for concerted and immediate architectural cooperation with the framers of the bill to insure the proper use of the expected funds through the trained selection, planning and supervision of the local projects. This may entail an entirely new type of architectural service, cooperative and low-cost and perhaps even integrated with actual construction. The bases for such service must be made and presented at once if the profession is to contribute its share to the success of the plan. The moral obligation of the architect is to insure the quality and soundness of the work, as it is the Government's function to insure the credit to be extended by the lenders.

Kenneth K. Stowell

Editor

Robert MacLean Gl

THE COURT, CALHOUN COLLEGE, YALE UNIVERSITY

JOHN RUSSELL POPE, Architect

The Architectural R

THE

ARCHITECTURAL

FORUM

VOLUME LX MAY 1934 NUMBER FIVE

CALHOUN COLLEGE, YALE UNIVERSITY

A unit of the College Plan to preserve the *esprit de corps* of the small college, cementing bonds, social and intellectual. Students studied undisturbed while the frame went up

JOHN RUSSELL POPE

ARCHITECT

WHERE Calhoun College now stands in sight of New Haven's village green, there stood once the brick Gothic buildings of the old Yale Divinity School. The story goes that when Ralph Waldo Emerson came down from Concord and beheld the then new Divinity School he doubted that there would ever be men worthy to live in such magnificent structures. We show no picture of that old pile designed by Richard Morris Hunt but suffice it to say that when its 60-year-old walls were pulled down in 1932 all Yale breathed a sigh of relief.

Calhoun College Quadrangle, named in honor of States' Rights John C. Calhoun of the Class of 1804, was designed in the office of John Russell Pope (Hon. M.A. Yale 1924) and was given to Yale University by Edward Stephen Harkness (B.A. '97). There are now seven residential college quadrangles completed at Yale, out of ten contemplated. Mr. Harkness has provided funds for the building and educational endowment of eight quadrangles. The buildings of all groups are from three to five stories high, built completely around spacious grassy courts or quadrangles.

College buildings reminiscent of Cambridge and Oxford are found here because the problems and programs are essentially the same as in the English Universities. The "House Plan" or "University of Colleges" is the logical and natural break-down of a large university into livable and workable units, which carry on the *esprit de corps* of the original small college. It is said that at Harvard before the adoption of the House Plan class spirit practically ceased to exist. Yale foresaw the same possibility of decrease in cohesive unity and adopted a College Plan. These new buildings, which Emerson could hardly have dreamed of, are therefore elements in

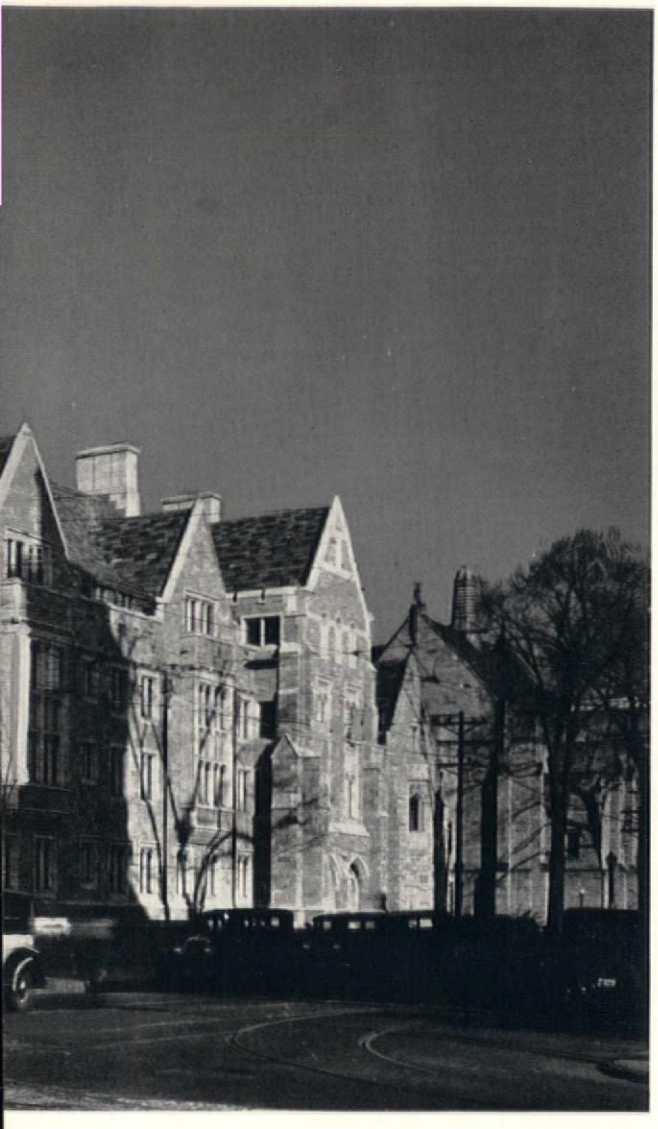
Robert MacLean Glasgow

a well-conceived scheme of university life, maintaining tradition and spirit.

The architectural program of such a residential college is not complicated. It is inherent in situations that are already well known in any growing university: Large numbers of students living in makeshift rooming quarters off the campus; an uncongenial "commons" dining hall overcrowded by unacquainted, non-mixing groups; an original university library building inadequate to seat or to serve the increased student body; large lecture classes offering no contact between student and faculty members, etc. To each and every one of these difficulties the College Plan seems to offer the best solution.

Each of Yale's ten residential Colleges is to accommodate from 170 to 200 undergraduates. It is thought that such a group forms the best unit for academic supervision, as well as for social intimacy and an anticipated inter-College athletic rivalry. The plan of any one of the Colleges is therefore predicated upon the most effective development of the interrelated activities of the individuals comprising such a group.

Calhoun College accommodates 169 upper-class students in single study-bedrooms and double suites of two bedrooms and a study. The Master of the College resides with his family in a house located at one corner of the quadrangle and separated therefrom by a walled garden. There are four resident Fellows and each one has a suite to himself. The Master and Fellows assume responsibility for the educational guidance of the students of their College, thus offering opportunity of personal contact formerly lacking between most undergraduates and faculty. "The function of the new Colleges is not to replace the old faculties but to supplement their teaching: not to provide the student with a new taskmaster but with an ally," according to Provost Seymour of Yale.



Calhoun College as it appears from the New Haven Green at the corner of Elm and College Streets. The warm seam-faced granite is typical of most recent Yale buildings

Wide social contacts among students are encouraged by their College dining hall (a completely serviced unit) where all members of the College are expected to take the majority of their meals, a common room, a library, music room, game room, and two squash courts. Besides these, the Fellows have their own common room, and there are five studies for non-resident Fellows of the College, as well as two large barracks rooms for overnight accommodation of visiting alumni.

The quadrangular arrangement of buildings around a court, with entrances from the street through archways and with all vestibules opening on the court, forms the basic plan pattern of all the Colleges.

Traffic and the noises of streets have also given rise here to a modern parallel to the medieval custom of building protection within moats and walls. (Almost every new building at Yale has its dry moat and parapet wall beside the sidewalk, the moat being utilized for light to basement windows.)

The court of Calhoun College is larger than most since all the area of the rambling old Divinity School was available, and some fine trees were preserved, creating with the new shrubbery a shaded and peaceful greensward within 20 ft. of two lines of trolleys and traffic. The Master's house, though an independent residence of less height than the other buildings, meets them wall to wall and closes one corner of the quadrilateral. Architectural irregularities have been cultivated in Calhoun court and give it charm: the arched entrance gates are half hidden in the angles formed by the meeting of two rows of buildings; a slight slope gave opportunity for different levels, marked by a low wall and sets of steps; the projection into the quadrangle of the ornamented wall and gate of the Master's private garden.

Architectural design in this College is based on the English Gothic and Tudor. Practical demands for abundant light and air in all rooms, and the height of the buildings which is as much as five stories in some places, of necessity required modification of traditional medieval precedent in design. The windows, for example, are larger here than is customary in original Gothic work where scarcity of glass or the need for defense dictated the size. There are also larger wall areas unbroken by ornamentation. But if this group has sacrificed precedent to functional simplicity it will be free from such criticism as has frequently been leveled at adaptations of Gothic forms to modern problems.

Exterior walls in the Calhoun buildings are not finished uniformly in the same material, but they were considered in relation to adjacent architecture. Two sides face streets, as already mentioned, and one of the others faces the cross-campus axis. For the street sides a rough seam-face granite was chosen, and laid in random courses with irregular jointing. On the cross-campus side, with Harkness Hall across the way, a smoother lighter stone (George Washington stone) was laid in the same random ashlar. But inside the quadrangle itself, where a more domestic character was sought along with simplicity and light, a large quantity of reddish or buff-toned brick was used. All cut stone, trim, chimney caps, and copings are of oolitic limestone or Ohio sandstone. The high sloping roofs are covered with slate specified to correspond in character

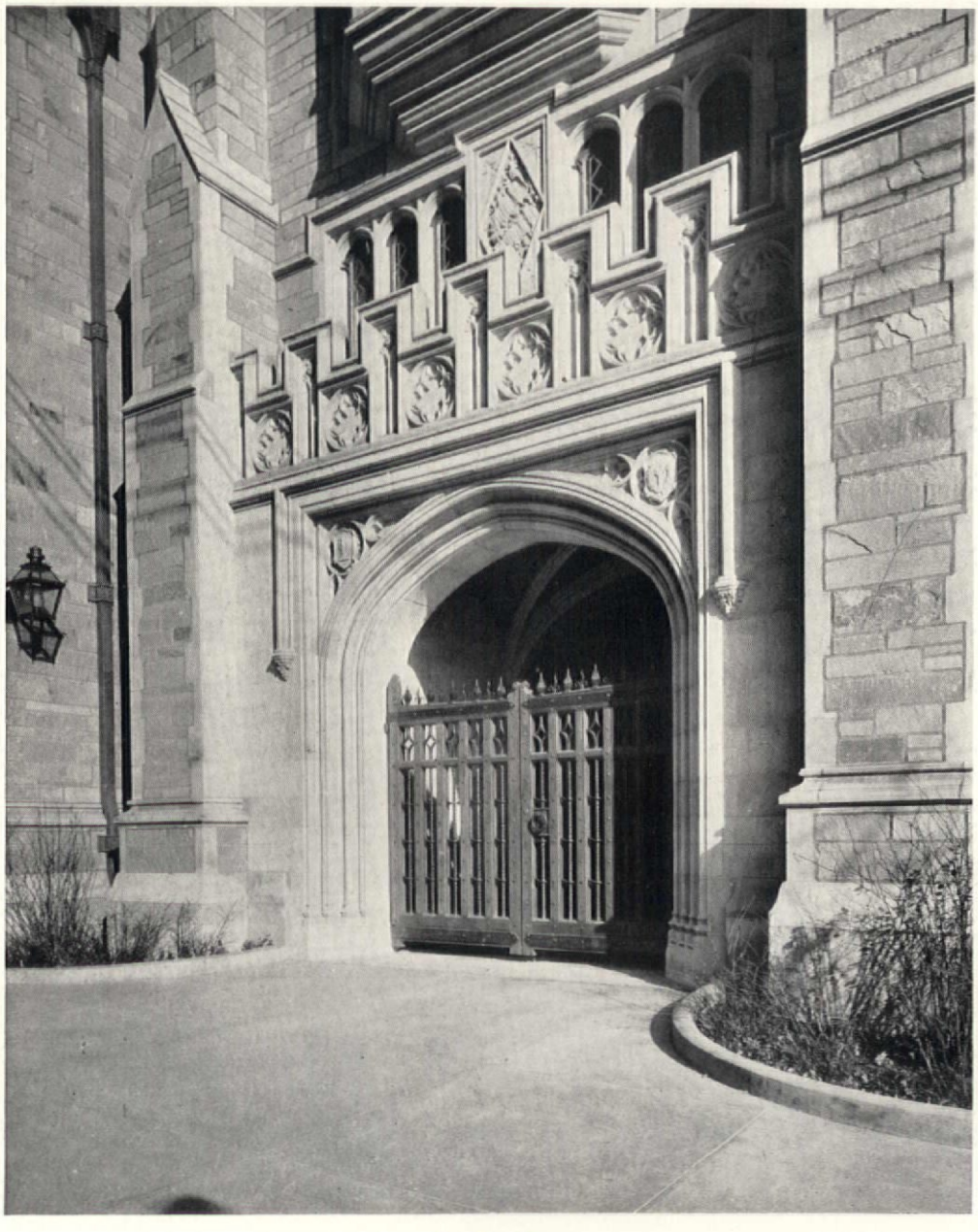
First floor plan of the Quadrangle showing typical arrangement of study-bedrooms and study-and-bedroom suites, as well as the dining hall and principal social rooms. The hatched portion at the upper right is the Head Master's House

with the roof of the great Sterling Library nearby.

Interior design follows closely the precedent which inspired the exterior, being predominantly Jacobean throughout the principal rooms, dining hall, lounge, commons room, library. In the windows of the dining room, lounge and library illuminated glass inserts depict events in the life of John C. Calhoun. (Georgian precedent, rather than Jacobean however inspired the interiors of the Master's house.)

The buildings of Calhoun College are completely fireproof. The members of the steel frame were welded to avoid disturbing adjacent university buildings by the noise of riveting (Calhoun is between the university infirmary and the library). The floors are of cinder concrete, the stairs generally of reënforced concrete construction, and the walls are 12 in. curtain walls, face brick and stone facing as described above, with the backing bonded in. The roof slabs are precast light reënforced concrete nailing slabs. Partitions and framing of hollow clay tile blocks.

The heating of these buildings as well as that required for their kitchens is by steam through a 2-pipe vacuum return system connected with the university's central power plant. Electricity of direct current is provided from the same source for the lighting, cooling, refrigeration, and ventilation.



SOUTH GATE

Photos, Robert MacLean Glasgow

Northeast corner of the court show
walled-in garden of the Master's

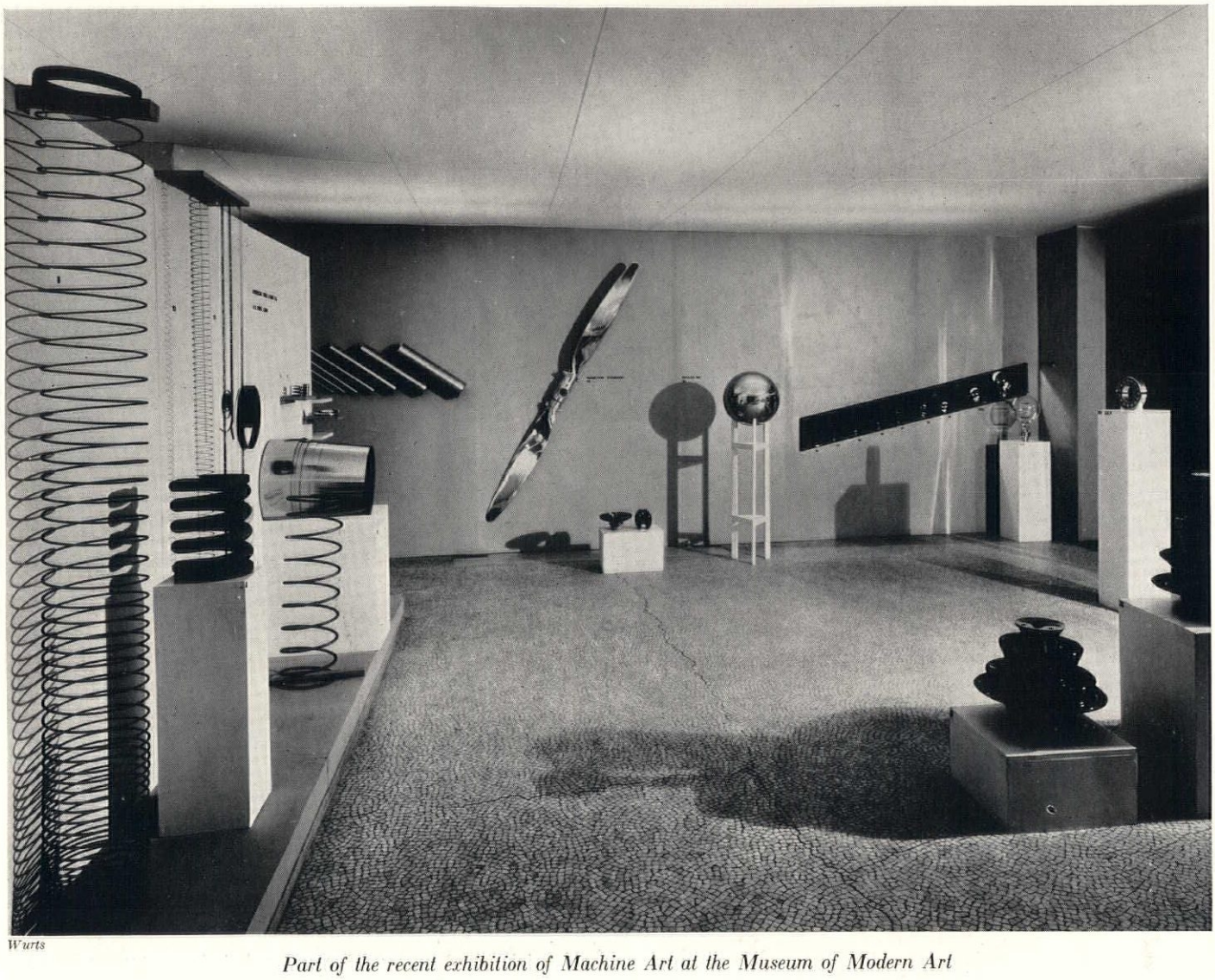
ain dining hall in dark oak. The ceiling
are of sound-absorbing material, stained

Left, the Head Master's Living Room. The paneling is oak and the treatment reminiscent of the English Georgian period which has influenced the whole character of the Master's House interiors, and in combination with the Tudor door and window openings produces an interesting "transitional" effect

Above, the Elm Street Bay in the Students' Lounge showing some of the illuminated glass panels commemorating Calhoun's times

The Head Master's Library paneled in knotty pine with typical Grinling Gibbons overmantel detail

The students' library is a simple, comfortable Jacobean room paneled in oak



Wurts

Part of the recent exhibition of Machine Art at the Museum of Modern Art

ART AND MACHINES

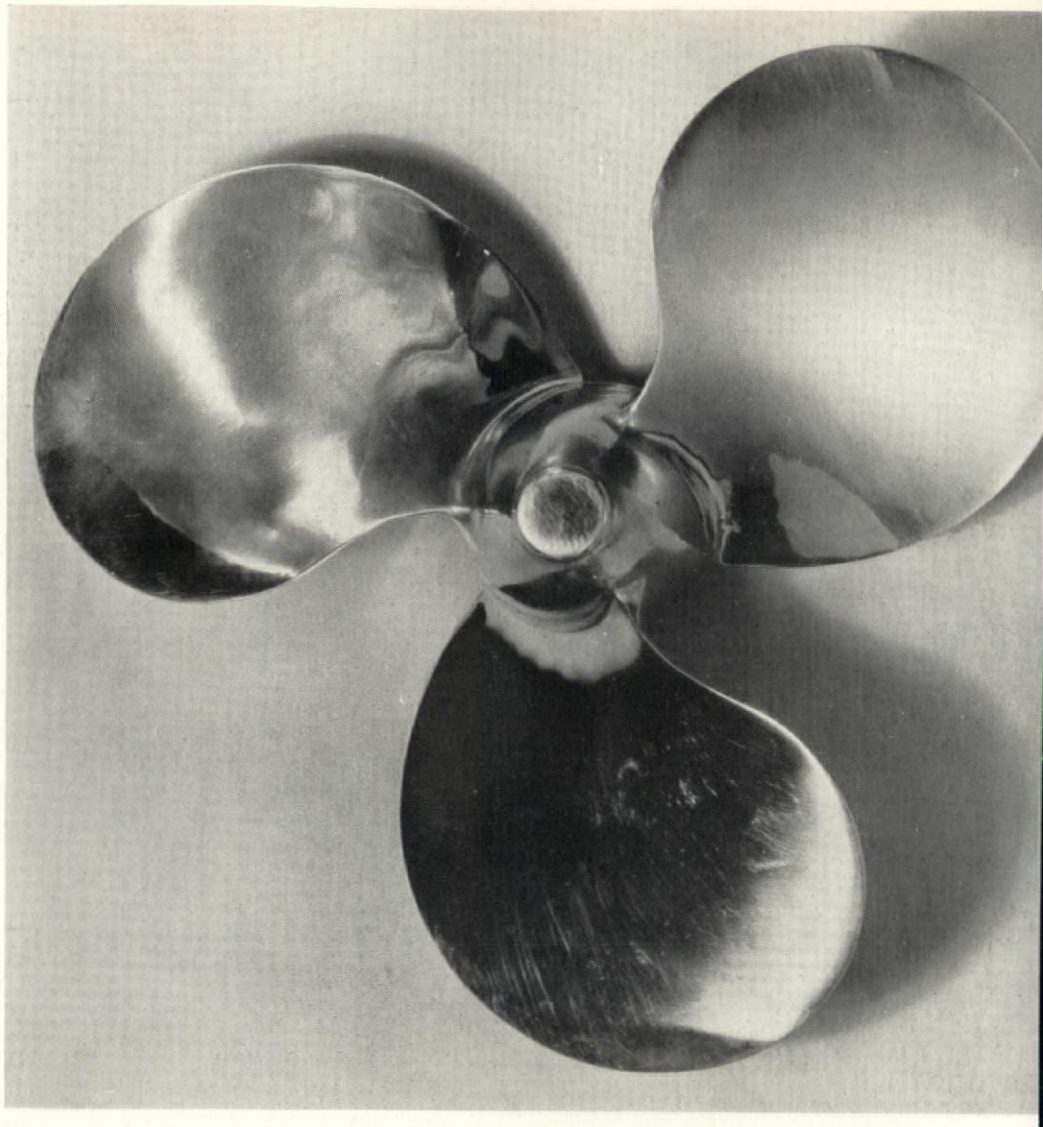
EXAMPLES OF THE ART *OF* AND *FOR* THE MACHINE AS SHOWN IN TWO NEW YORK EXHIBITIONS

RUNNING the gamut of utilitarian objects from cash registers to telescopes, the machine art exhibit (just concluded) at the Museum of Modern Art, 11 West 53rd Street, N. Y., attracted several thousand visitors. The *raison d'être* for the show was succinctly stated in the catalogue issued by the Museum: "Industrial civilization must either find a means of ending the divorce between its industry and its 'culture' or perish." William Morris would turn in his grave if he could see the contrast to the handicraft spirit of the 19th Century. The exhibition was a celebration of the reunion of technics and design, and the *unconscious* achievement of beauty as a by-product of utility.

Sponsored by The National Alliance of Art and Industry, Inc., during the month of April, The Industrial Arts Exposition, on the 62nd floor of the RCA building in Rockefeller Center, demonstrated what designers are doing in the way of *conscious* creation of forms to help the engineer sell his mechanical devices. Lagging somewhat behind Europe, we are developing a national style, dictated by the machine and social needs. The general simplicity shown is another indication that we are returning to essentials. It was interesting to note that sharp edges and corners are disappearing, and that numerous curved forms are taking their place in the commercial designs of utilitarian products.

Desk lamp designed for Kurt Versen by Howe & Lescaze

Inkstand and calendar designed for I. S. Pertofsky by Howe & Lescaze

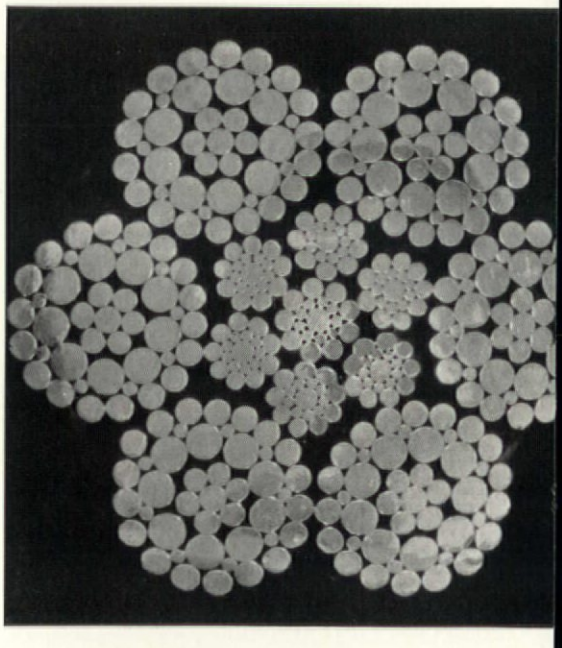


Outboard propeller, by the Aluminum Company of America, second choice of the judging committee

Manning

Flush valve, by Scovill Mfg. Co.

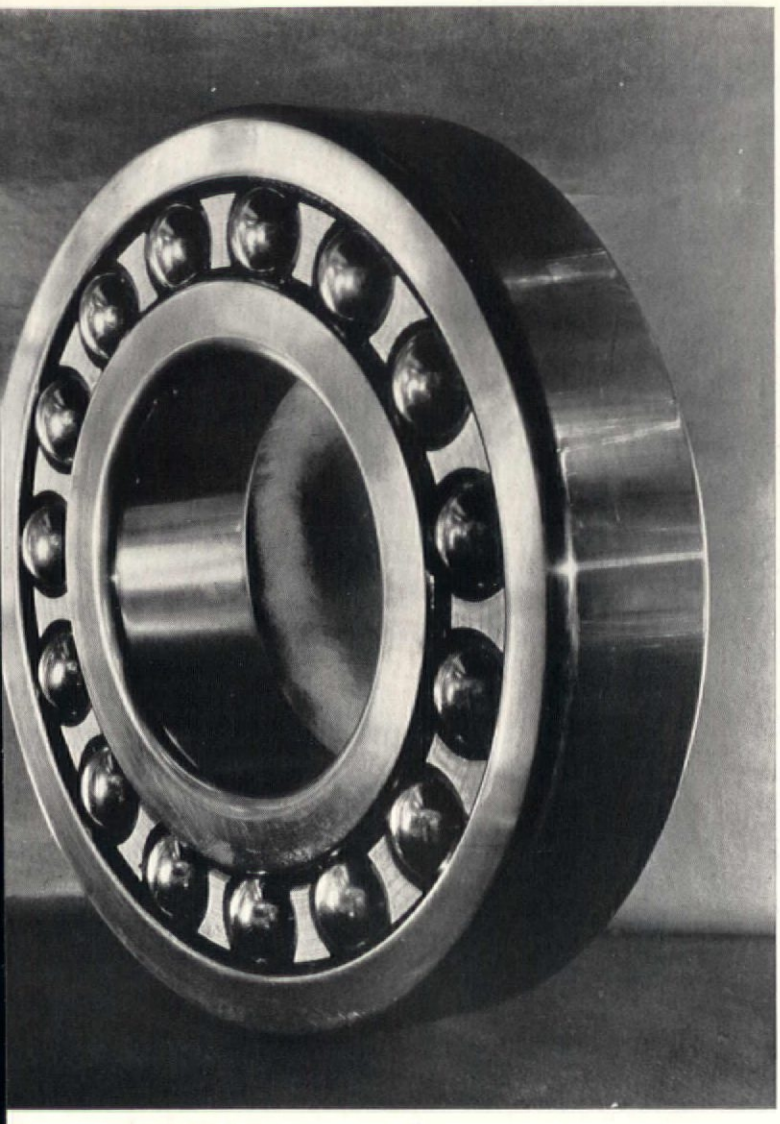
Outside firm joint caliper, by Brown & Sharp of New York, Inc.



Section of wire rope 3½ in. in diameter, by the American Steel and Wire Co.

Hedrich-Blessing

Electric clock, designed by Gilbert Rohde for the Herman Miller Clock Co.



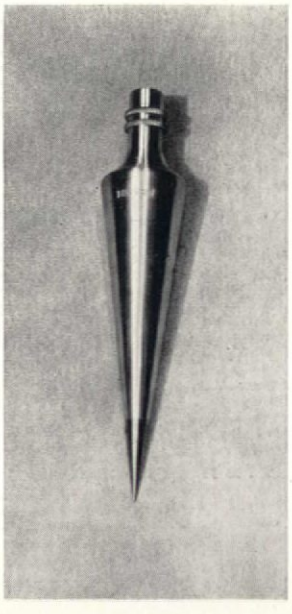
Self-aligning ball bearing, by SKF Industries. Third choice of the judging committee

Section of spring, by American Steel and Wire Co. The first choice of the judging committee

MACHINE ART EXHIBITION, 1934

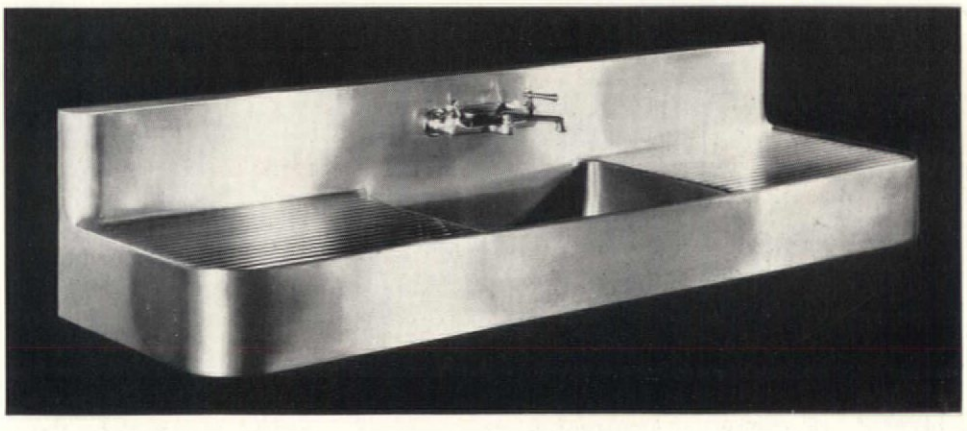
The Museum of Modern Art, New York

Philip Johnson, Director



Brass plumb bob, by Eugene Dietzgen Co. Third choice of Frances Perkins, Secretary of Labor

Burglarproof chest, by the Herring-Hall-Marvin Safe Co.



Streamline monel metal sink designed by Gustav Jensen for International Nickel Co., Inc.

INDUSTRIAL ARTS EXHIBI

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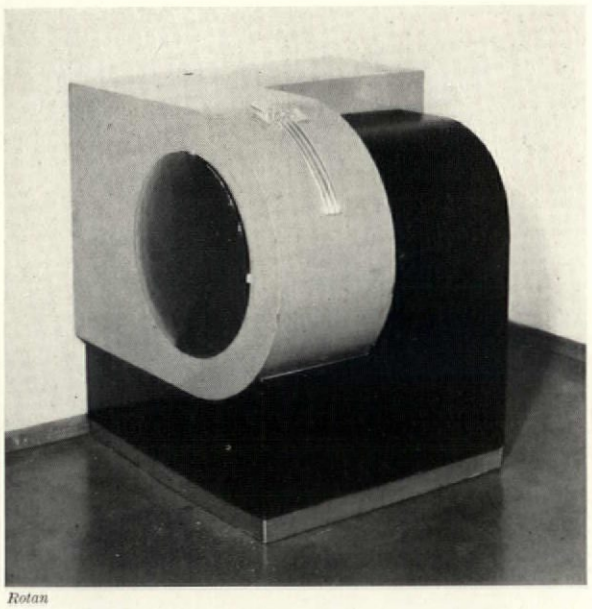
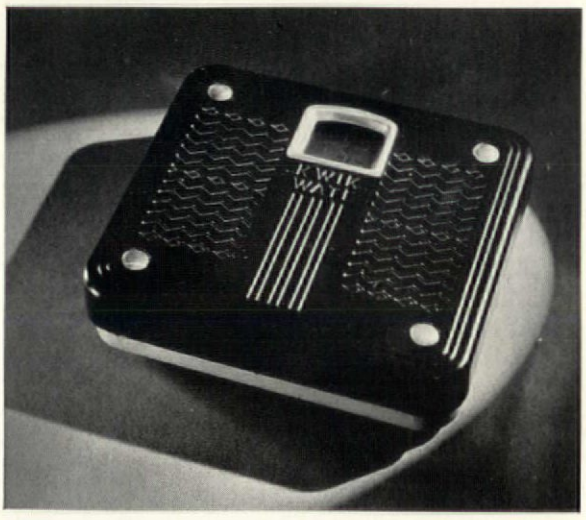
THE NATIONAL ALLIANCE OF ART AND INDUSTRY

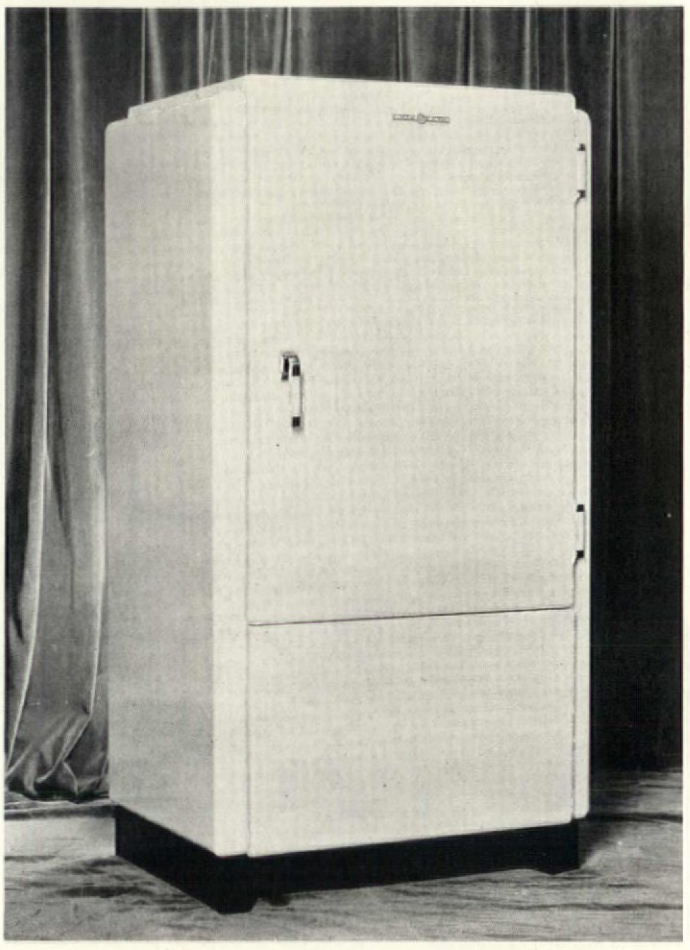


Rotan

Oil burner designed by Donald Deskey for the May Oil Burner Corporation

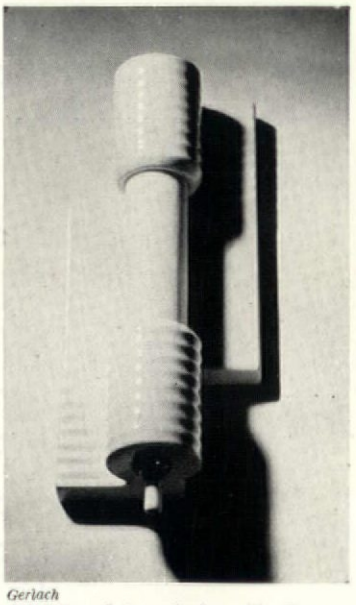


Scale designed by Van Doren & Rideout for the Holly Carburetor Co.



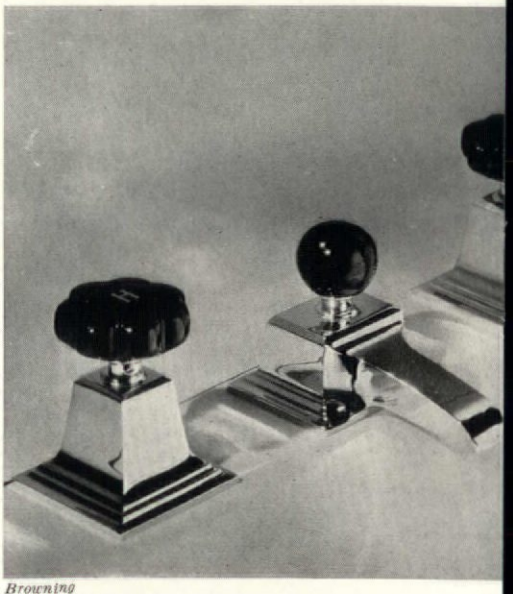
Refrigerator designed by Henry Dreyfuss for the General Electric Company

Ice bowl and tongs designed by Russel Wright for Chase Brass and Copper Co.



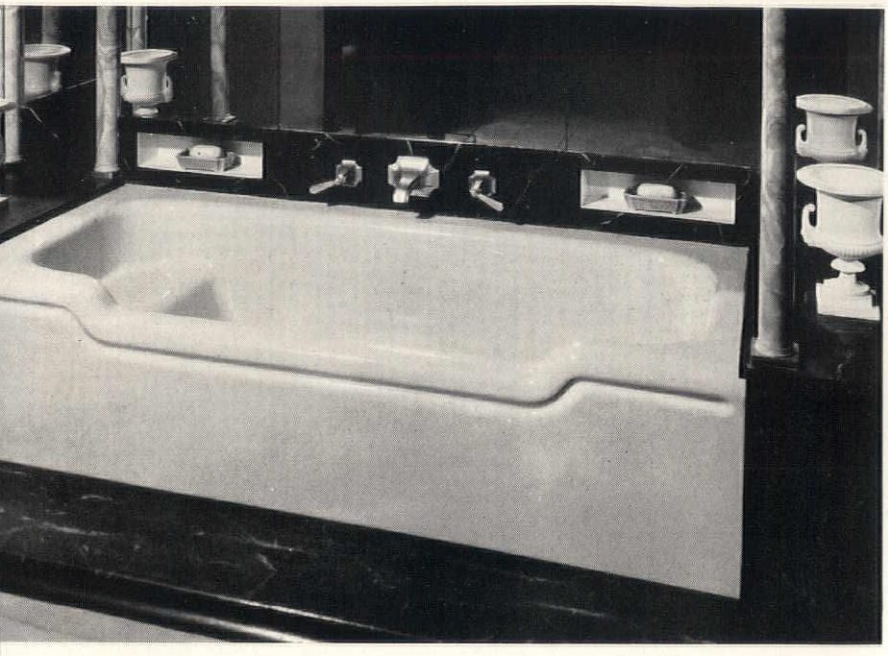
Gerlach

Lighting fixture designed by Gustav Jensen for Pass & Seymour



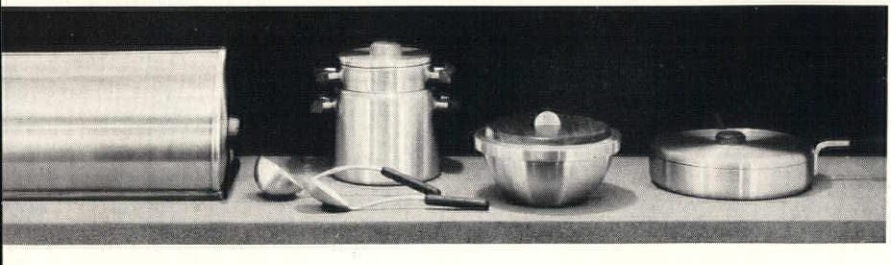
Browning

"New classic" fittings designed by George for the Standard Sanitary Manufacturi

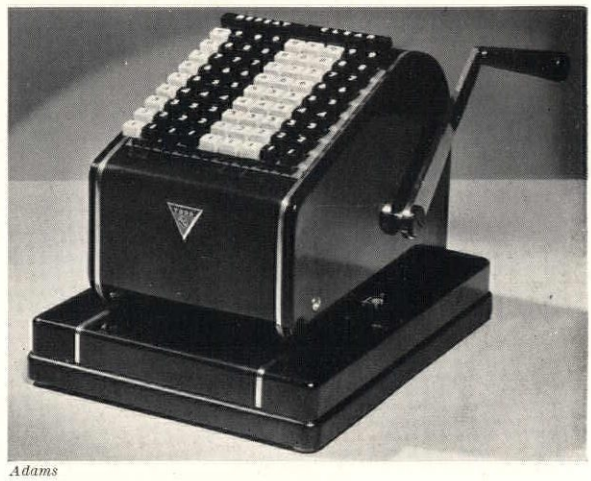


athtub designed by George Sakier for the Standard Sanitary Manufacturing Co.

Radio designed by Russel Wright for the Rudolph Wurlitzer Co.

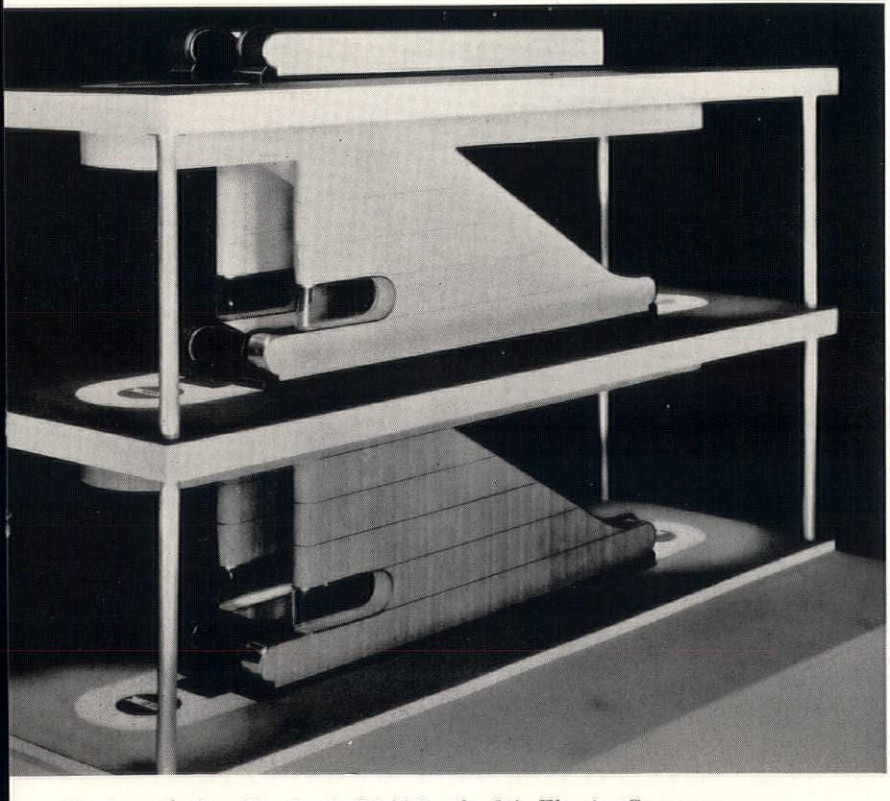


Kitchen group of aluminum and walnut designed by Russel Wright



Adams

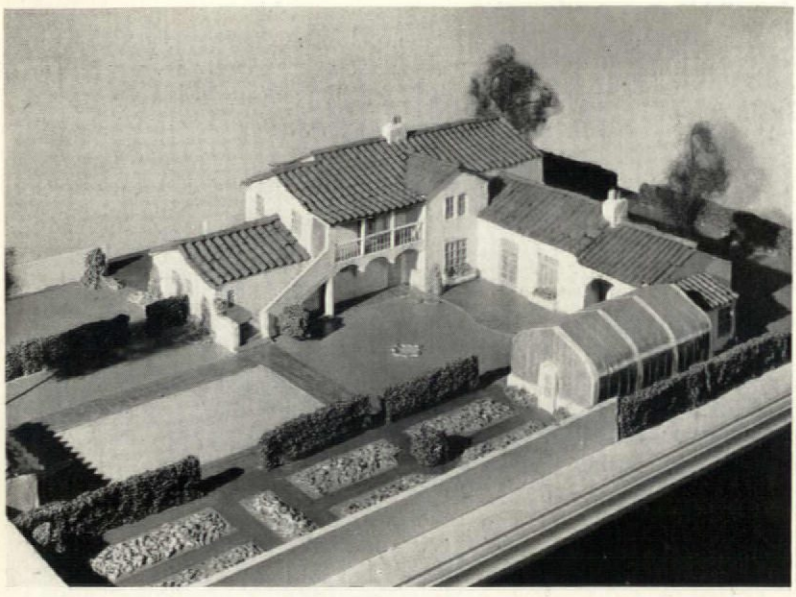
Protectograph designed by Henry Dreyfuss for The Todd Company

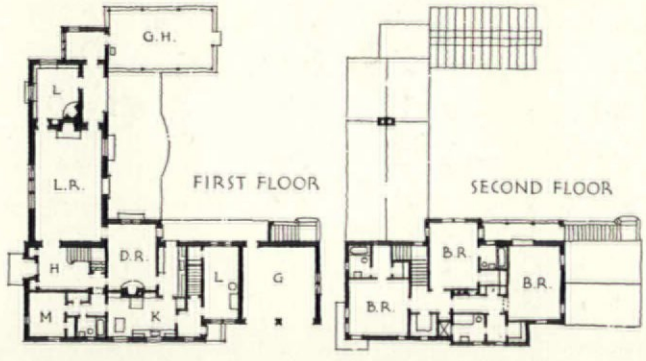


Escalator designed by Louis Pfohl for the Otis Elevator Company

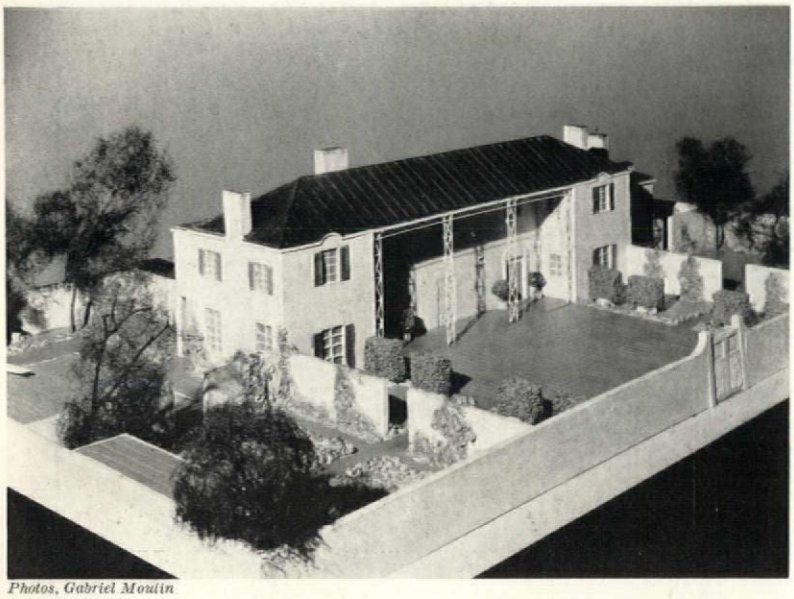
Commercial Photographers

Pencil sharpener designed by Raymond Loewy

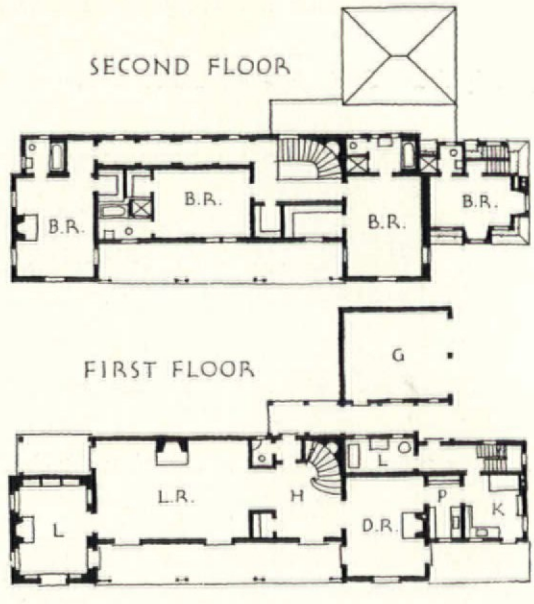




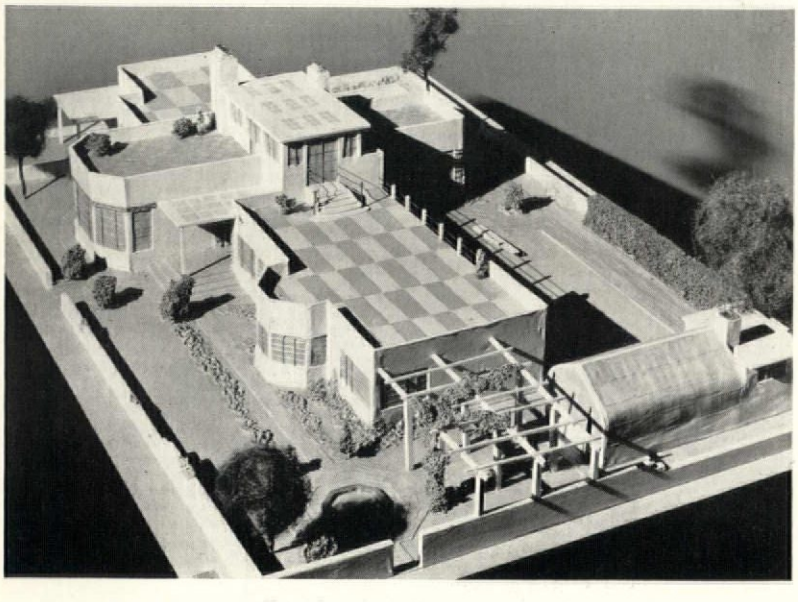
It is not surprising that this house by Edward W. Kress, with its pleasing unity and rambling character, should have been awarded first prize by the jury

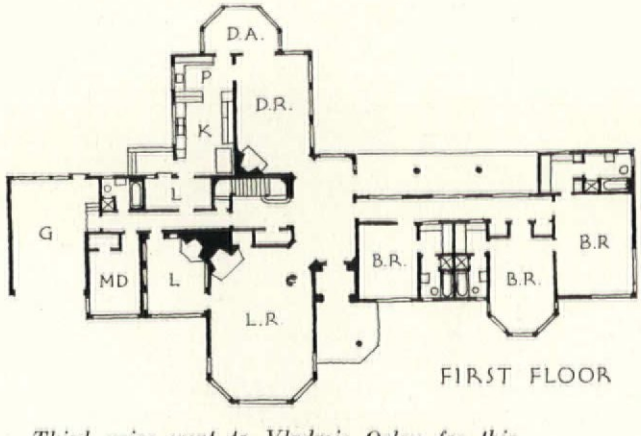


Photos, Gabriel Moulin

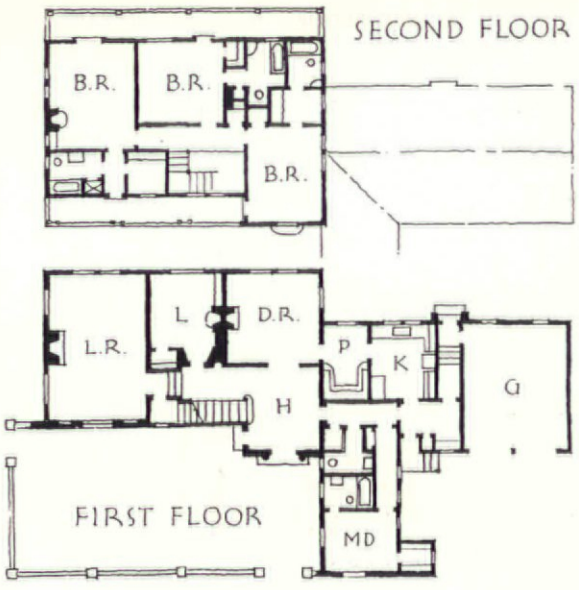


This somewhat formal design by F. L. Confer and J. H. Anderson took second place. Even without columns the porch treatment suggests Southern influence

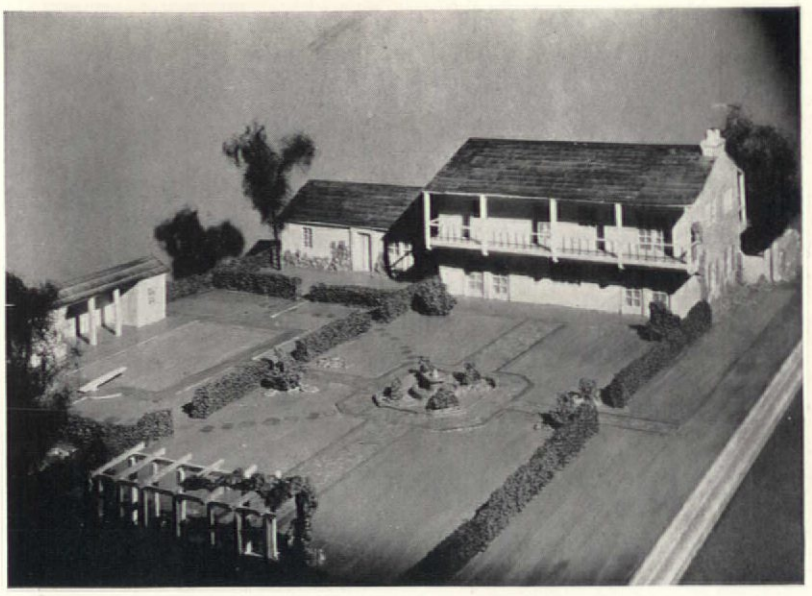


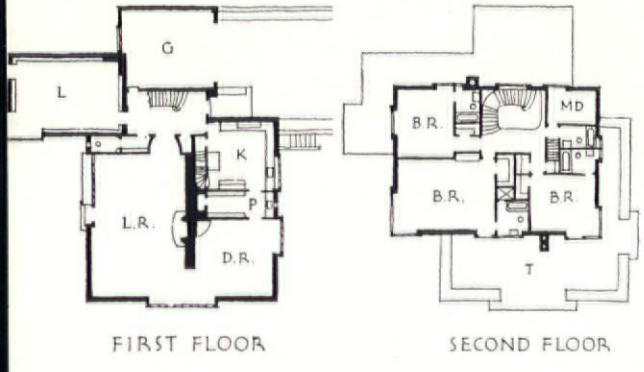


Third prize went to Vladmir Oglou for this version of the International style with its ample sun deck space



Harking back to the early Spanish, James T. Narbeth has recaptured its simplicity





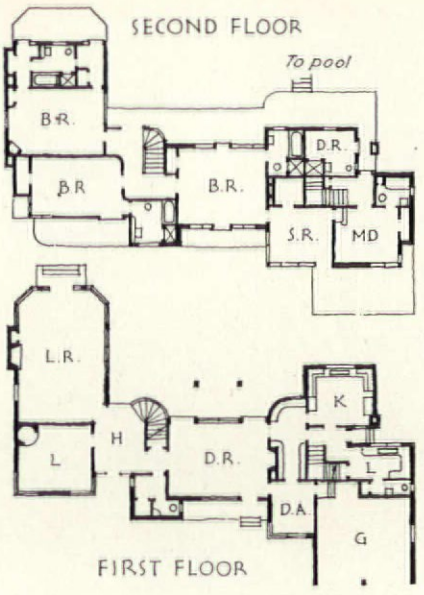
In contrast to Oglou's design on the opposite page, Warren Charles Perry uses the International Style without taking all roofs for sun deck space

CALIFORNIA SUBURBIA

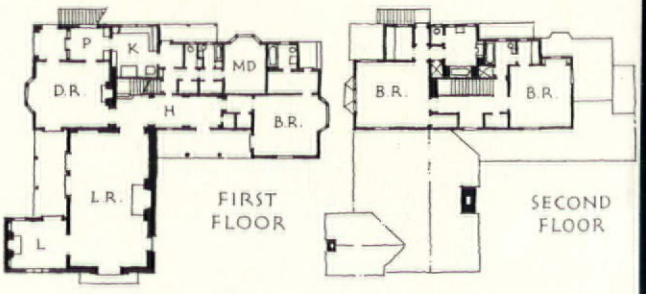
San Francisco's City of Paris department store exhibits eight prize-winning models for housing a family of three and one servant. Among requisites: a two-car garage, a swimming pool, a greenhouse

THE City of Paris department store of San Francisco has been exhibiting models of eight houses which won prizes in a competition under the auspices of the Northern California Chapter of the A.I.A. Eight prizes of $100 were awarded. Although only architects of the Northern District could compete, 72 submitted designs. Allowing either one or two stories, any style, or any material, the program called for supplying comfortable shelter on a level lot with 100-foot frontage and a depth of 160 ft. for a suburban family of three and one servant. Requisites were: steam heat, fireplace in the living room, dining room and library, an entrance hall, a pantry, kitchen, laundry, servant's room with bath, three master bedrooms each with bath, a two-car garage, greenhouse, swimming pool, and an intimate connection between the garden and the house.

Gratifying results were the fruit of this competition. As a group the houses show great variety, yet all are Californian in spirit. Also placed on view were the house models of eight leading New York architects, shown in THE ARCHITECTURAL FORUM, October, 1933. This afforded an unusual opportunity to appraise and compare the current trend of architectural thinking in small house design.

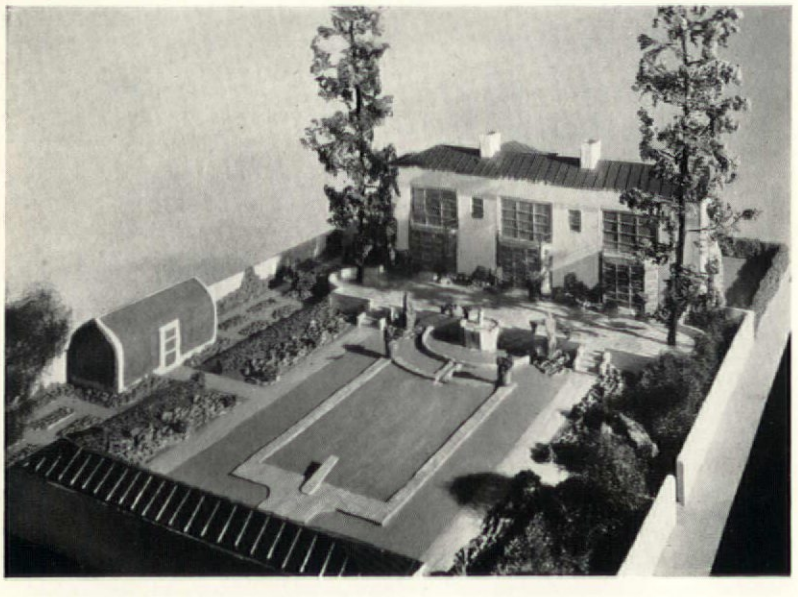


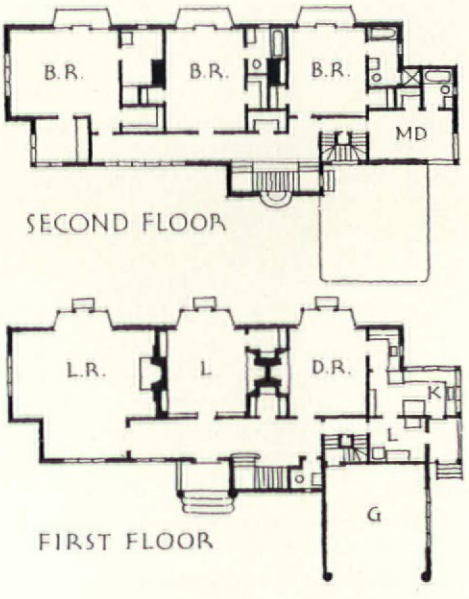
Of the entire group of eight, this design by Ralph E. Wastell and John M. Evans shows the strongest European influence



A rambling house with an often broken roof line such as this one by Miller & Warnecke typifies native Californian architecture

Formal simplicity and directness characterize this house and garden by Raymond W. Jeans





The after and before of the prize winning remodeled house of Dr. M. C. Del Manzo, New Hope, Pa., Alfred N. Boell, architect. The work cost $8,429 and the prizes won totaled $1,200

REMODELING COMPETITION PRIZE WINNERS

OVER 18,700 home owners in 42 States entered the remodeling competition conducted by *Better Homes and Gardens*. Prizes were awarded in four different classes of remodeling, the classes corresponding with the cost of the work, Class 1 being for improvements costing less than $150, and Class 4 for improvements of over $1,000. "Before and after" photographs and a description were furnished by each contestant. The final judges were nationally known architects: H. Roy Kelley, Los Angeles, Ben F. McMurry, Knoxville, Tenn., and Penrose V. Stout, New York. Two winners are shown.

The first prize in Class 4 and the special $1,000 Sweepstakes prize were awarded for the remodeling of the home of Dr. M. C. Del Manzo, New Hope, Pa., Alfred N. Boell, architect. The first prize in Class 3, for improvements costing between $500 and $1,000, was awarded for the remodeling of the home of Mr. and Mrs. Robert E. Brown, Los Angeles, Calif., designed by the owner.

This competition has been made an annual event in which architects' work is eligible.

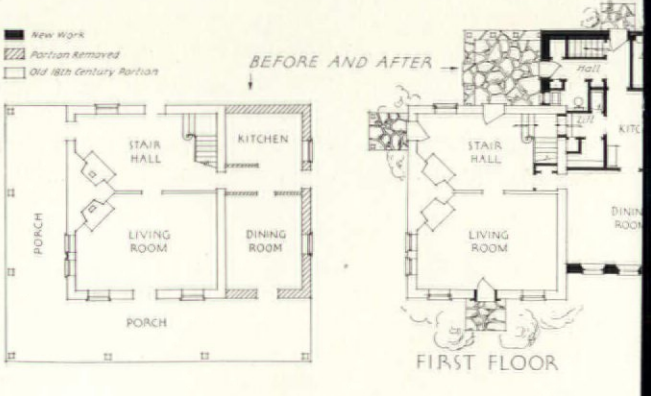
Wallace Photos

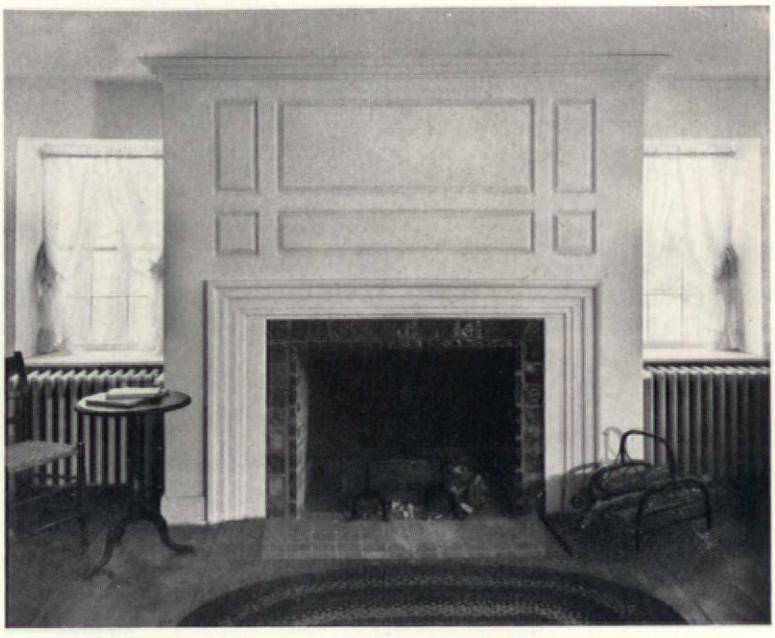
The rear, before and after, shows what can be done in restoring and enlarging. The battens in the smaller illustration indicate where an ugly Victorian wing had been removed previous to the remodeling

CONTRARY to first impressions, this historic Pennsylvania farmhouse lent itself readily to remodeling. The old stone from the demolished wings had to be used and fortunately there was a stone wall of a barn of exactly the same type of cut stone that was needed. This had weathered for many years and nearly matched the uncovered stone of the main house.

There were definite indications that there was once a good doorway which in all probability had been removed when the porch was added. The inviting new entrance door and enframement are in spirit and detail reminiscent of the early Pennsylvania work. All exterior details, such as cornice, shutters, blinds, window frames and sash, moldings and hardware, were made in exact duplication of existing original work, unifying the restoration.

Inside the old house these changes made were: the repair of fireplaces, furring out the stone walls to eliminate dampness, repairing the old English hemlock floors and relaying a new 8 in. plank oak floor in the stair hall. The stair hall was considerably improved, giving more character to the stair-





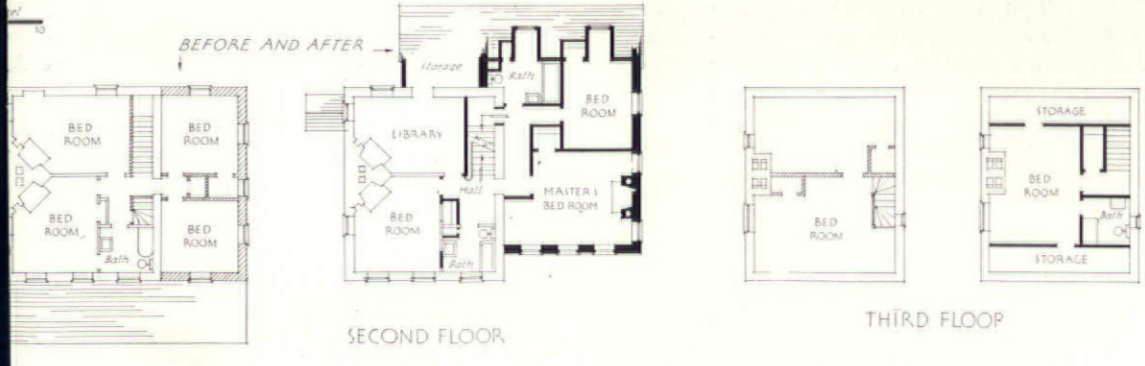
way by replacing the old balusters with new ones of an early American pattern, re-working the newel post and hand rail, and adding scrolled brackets and a raised paneled spandrel.

In making studies for the paneled end wall of the dining room it was found that the paneling on the existing fireplaces was identical in disposition and dimensions with those of the Washington Headquarters house at Valley Forge. All new paneling, doors, door and window trim and chair rail duplicated the old exactly.

Many conveniences, such as a telephone niche, a clothes chute to the laundry, modern kitchen equipment, ample closets and storage rooms, were installed to make the house modern in its functioning.

The roofs of the old and new part were well insulated with mineral wool. Bathrooms and kitchen were wainscoted with an asbestos wall tile. New brass lighting fixtures and outside porch lanterns, all copies of early American designs, were installed. Brass pipe was used throughout and an automatic, controlled heating system was installed. Very fortunately in the installation of the heating system in the old portion it was found possible to hide all ugly riser pipes by running them through closets and through the small closets in the old corner fireplaces. No old stone walls needed to be channeled or chased, a considerable saving in expense.

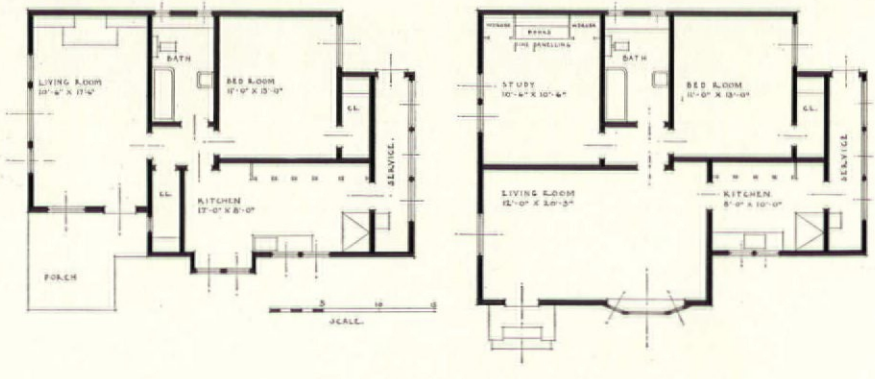
Washington's Headquarters, Valley Forge, was found to have paneling almost identical with that of an old fireplace found in this old farmhouse. The plans below show how the remodeling was accomplished



Associated Photographers

BEFORE

AFTER



REMODELING PRIZE WINNER, CLASS 3

For some $735 this house in Los Angeles was metamorphized from a nondescript and tasteless bungalow to a home of some distinction. The new door with its blinds is an interesting feature and a well-proportioned bay window replaces an ugly box form. The plan was changed to give a larger living room having southern exposure, to add a study and to reduce the kitchen to an efficient size. First prize in Class 3 *Better Homes and Gardens* remodeling competition was awarded to Mr. and Mrs. Robert E. Brown, owners and designers of the remodeled home shown above.

"HORS de CONCOURS"

WITH KENNETH MURCHISON

ENOUGH bars have been built in the last few months to keep the New York Chapter busy. We have often thought of having a personally conducted tour of New York's latest and handsomest tap rooms but the expense is just a bit prohibitory.

Old-fashioneds at fifty cents mount up into a pretty sum along about quarter to seven — that is, if you have been NRA and all that and closed shop at five, no matter whether we're in the middle of an egg, not to mention the darts.

We don't hear much that is new at the circumnavigators' table along about lunch time at the Architectural League. We call it "circumnavigator" because none of us have been around the world except Ely Kahn and we gave him a send-off in our last issue.

Housing is taboo. They are all sick of it. They have all talked each other to death about it and are abandoning it, while on the outside, no doubt, dark figures are scurrying around the cellars of these self-same abased tenements, turning over in their minds subtle schemes for evolving a plan wherein their rooms may rent for the mythical price of $6 per month, no matter what the greedy scheming landowner may demand for his property.

Versatility. Architects are doing other things in their spare time. Take the LaFarge family, for instance. They do all sorts of eerie doings in their spare time. Now Christopher "Kipper" LaFarge has published a full-size novel, in blank verse, very cordially received by the critics and certain to make a big hit. "Hoxsie Sells His Acres" by name, it is a saga of Rhode Island, the home of the succulent clam and the beguiling lobster. So why be an architect when you can do other things? That is, just at the moment?

We. As for ourself, we're getting paid for showing someone how to run a club. What could be simpler? Just child's play, that's all. The only catch in it, though, is that the club has to get out of the red, and P.D.Q. too.

The architectural plan of this particular club was, and is, one of its handicaps. No room waiter who has been there less than two months can possibly find his way from the kitchen to the bedrooms; and as for the Gentlemen's Lavat'ry — it just can't be found in time. The architects planned it as a sort of hide-away, just as cute as it can be — but you just can't find it, that's all.

Getting Together. This is the month of the A.I.A. Convention, isn't it? So off we go to Washington, with its crowded hotels and its jammed-up trolleys and its grab-it-while-you-can restaurants and its general air of topsy-turvyness.

We wish they would settle more general matters in committee and leave at least half of each day free for visiting around among one's old friends and testing out the various brands, as it were. This sitting in a chair all day and hearing the same old yappers takes up time and we want to drown 'em and our other sorrows.

Throwing Out the Clubs. In New York we have a rousing Park Commissioner, Robert Moses. He is raising a little light hell all over the town, all for the good of the poor, naturally, not for us plutocrats. He is ousting the dear old Columbia Yacht Club from its quarters at the foot of 86th Street, North River, where it has sat in undisputed possession for 67 years. It has played an important part in the life of visiting yachtsmen, and it also has entertained the officers of every naval vessel that ever dropped a mud-hook in the Hudson River.

Commissioner Moses says he wants the place for a playground. Every few months the trains run over a group of inebriated yachtsmen but nobody seems to mind it very much. It is a pity to remove this nice old building, with its wide terraces on which the rocking-chair fleet sat at anchor every afternoon and evening, more so this year especially since Repeal has come in, thus enabling the yachtsmen to do their dampest.

Busy Draftsmen. The Park Commissioner has also given jobs to a great many draftsmen. These men formerly worked for the CWA but on April first, when that organization seemed to be gasping for breath, they were transferred to the Park Department, an organization which seems to have picked up a little money from somewhere.

The old Arsenal Building in Central Park is now a collection of drafting rooms, built one on top of another, teeming with life and hope and busily engaged in getting out a lot of new buildings for the parks with as little delay as possible so that the unemployed may be put to work.

In Central Park in New York City, and in Prospect Park in Brooklyn, Commissioner Moses is going to put up some new buildings for the animals. Ever since we were a boy we have smelt the lions in Central Park day after day, but that boyish delight will soon be over. The new buildings will probably

be lion-smell-proof and another one of our proud New York traditions will soon be a thing of the past. (See our Forum of Events for pictures.)

Architect Aymar Embury, II (or III, we don't remember which) is in charge of these draftsmen and is getting out plans galore for monkey houses, fish pools, comfort stations, snake holes, bears' caves and other bits of monumental architecture.

Bums' Retreat. Bryant Park, at 42nd Street and Sixth Avenue, has always been known under this delectable title but when Commissioner Moses gets through with it he claims it is going to look like something.

It was on this site that Architect Joseph H. Freedlander put up the beautiful imitation of Federal Hall which lost so much money for the George Washington Bicentennial Commission in 1932. It was known as "the gravestone of the Commission." Architect Freedlander did such a fine job that the people who built it never got their money back. The school children would not pay anything and the people all said "Aw, t'ell with it!" and so on, and so on. But it's torn down now.

There We Go! Yes, we are back again on housing! The New York Chapter of the A.I.A. is soon going to make a definite scheme for the selection of architects for the Municipal Housing Authority and they are securing the cooperation of the other architectural societies of greater New York toward this end. When they get through, the organization chart will probably look something like that of General Motors or the U. S. Government, on account of the complexity of the situation, the various bureaus involved, and also the point of having so many different units scattered all over the different boroughs, thus necessitating liaison officers, translators, historians, art critics, plumbing experts, accountants, actuaries and apiarists. (Wazzat?)

Although we are nurturing no lurid hopes of any of this housing, we would like to convey to the authorities at large that we are pretty good on liaison stuff ourself and as a qualified messenger boy we cannot be equaled. We did this same job in the war for the Emergency Construction Committee — that was sixteen years ago and we are still able to run liaisons or messages.

★ ★ ★

THE PHILADELPHIA CITY HALL

THE town as planned by William Penn had
contemplated having them
An open park with trees and grass where Market
crosses Broad
But later on the boys in power built the city hall
and tower
With walls of stone as heavy as the chronicles
record.

It proved to be a masterpiece, in that without
the use of grease
The money from the coffers flowed without a bit
of friction.
You wouldn't have to see the books, the architecture has the looks
Of Aldermanic whoopee and contractors' benediction.

Although it's only five floors high, and buildings
round it touch the sky,
You feel it puts a frightful load upon its poor
foundations.
The door reveals and plaster jambs look like the
sides of cofferdams
And if you pine for strong detail, observe the
rustications.

The arches on the axes take pedestrians and taxis,
And victims for the booby hatch go by in Black
Maria.
Old ladies sell you fruit and nuts and backed by
moldings full of guts
The flower stands are colorful and welcome spots
of fire.

The stories have been built so high, that you can
swear as you go by
The guys you see behind the stools are surely
Lilliputian.
The granite sills and window trim project to save
the life and limb
Of boys who wash the windows and the pigeons
at pollution.

A certain heaviness appalls the visitors to city
halls,
Although the inmates like it and this is no
exception.
Great Eastlake doors and architraves and shutters
built of barrel staves
Look up at dusty cornices that challenge all
inspection.

SONG

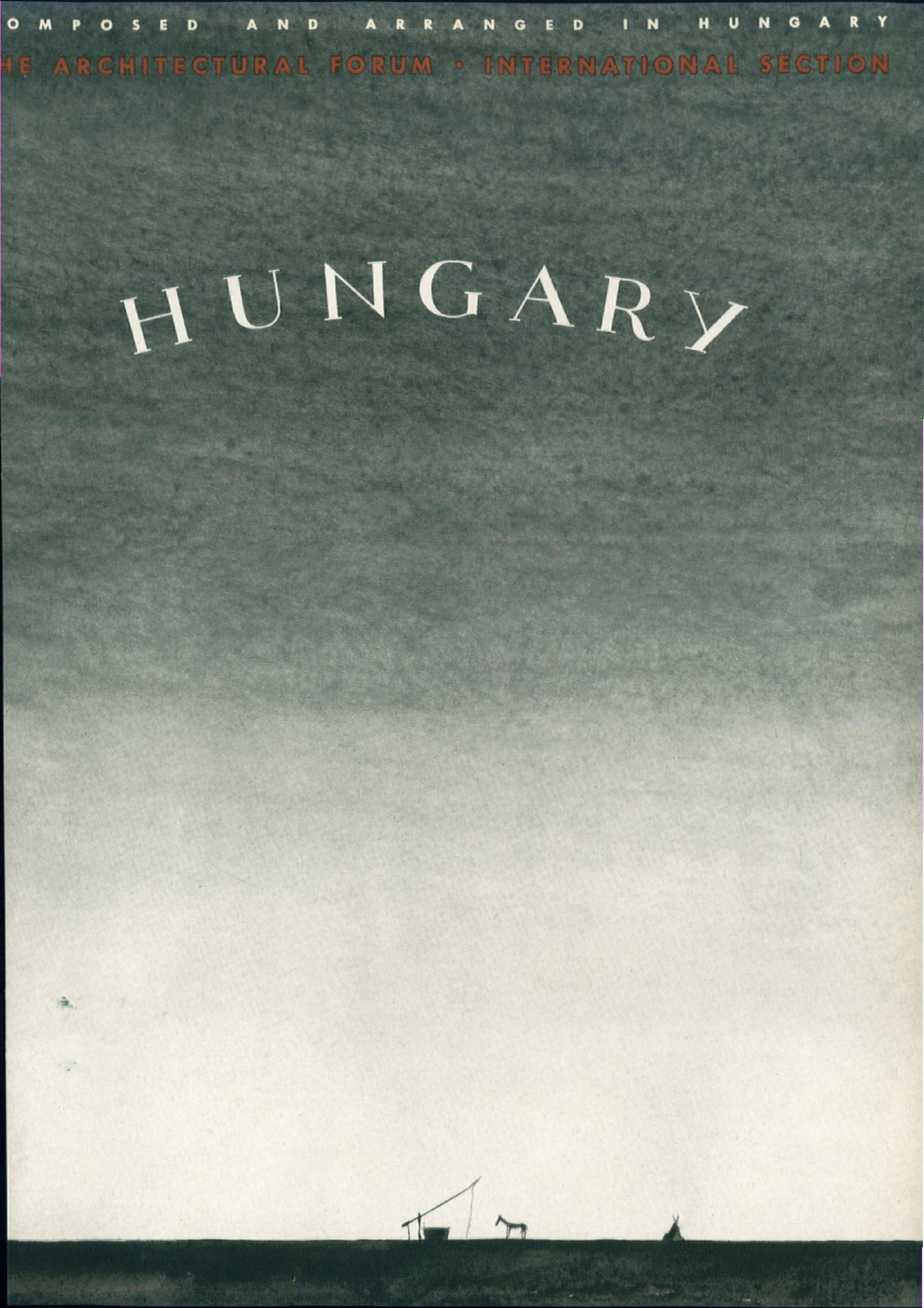
The barrels where they kept the pork were sent
to Boston and New York
And places like Chicago where they served for
other jobs.
For building trades are messy things and candy,
pork and diamond rings
Must have a place to hide away from auditors
and snobs.

NOTE: *This poem is one of a collection written by an eminent architect whose identity will not be disclosed until the volume is issued by Houghton-Mifflin.*—ED.

OMPOSED AND ARRANGED IN HUNGARY

HE ARCHITECTURAL FORUM • INTERNATIONAL SECTION

HUNGARY



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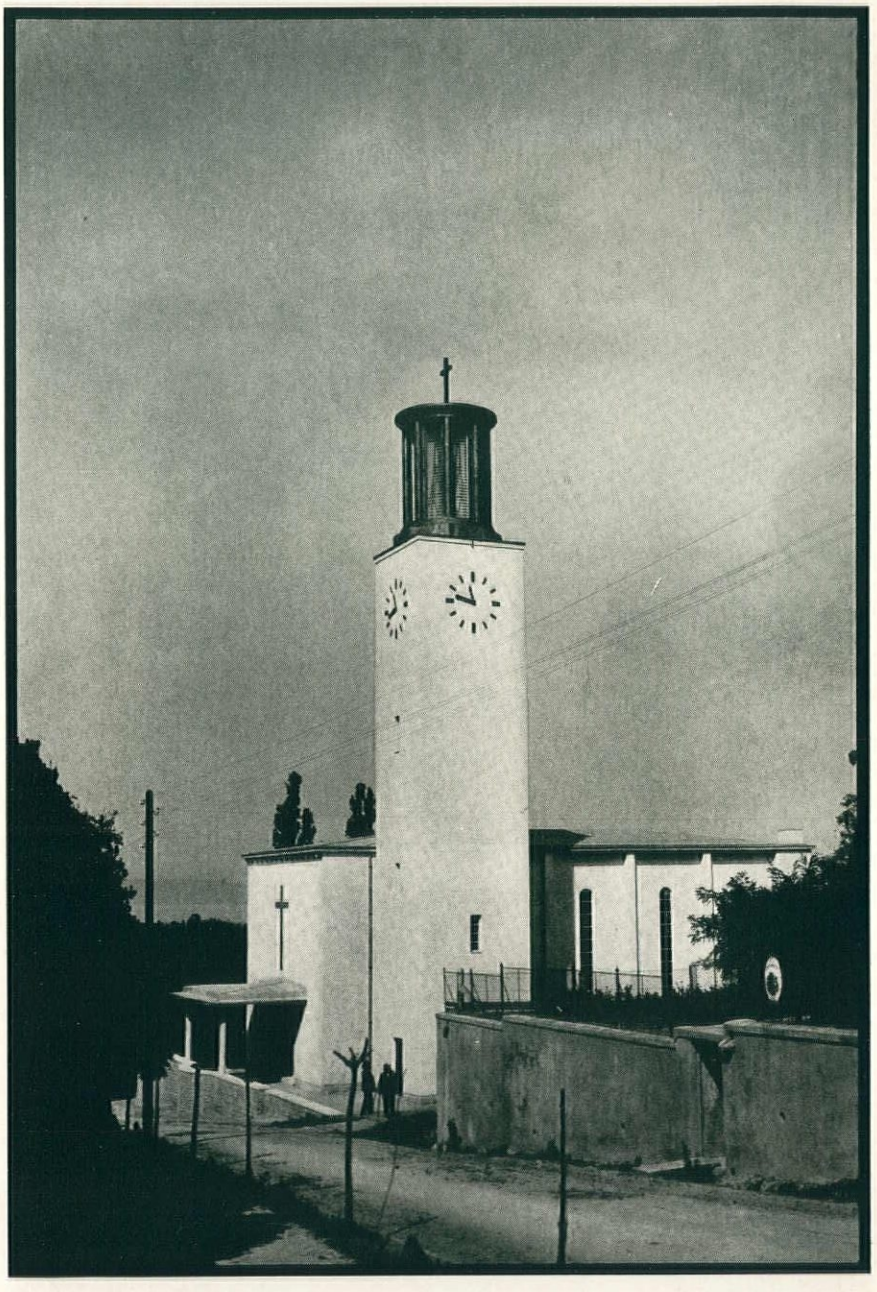
FROM THE HUNGARIANS ONE MUST EXPECT A FREEDOM OF ARCHITECTURAL TREATMENT AMOUNTING ALMOST TO ÉLAN. EYES MUST SEE BIG WHICH HAVE LONG BEEN ADJUSTED TO THE IMMENSITIES OF THE PUSZTA.

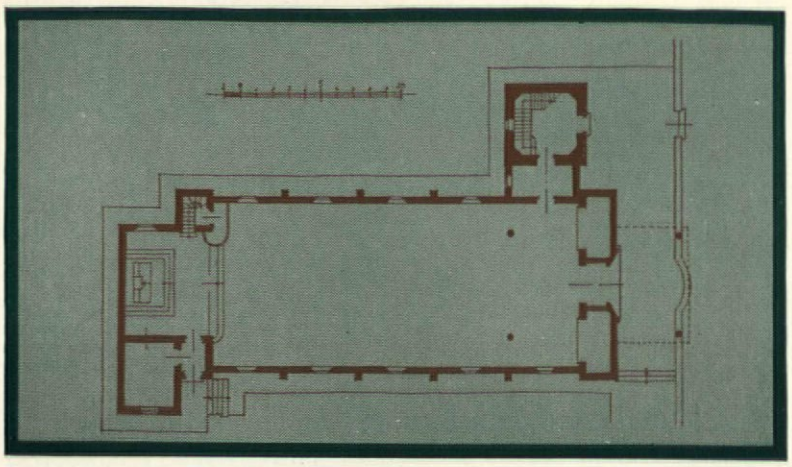
HUNGARIANS CANNOT BUILD A RIDING-SCHOOL WITHOUT MAKING IT AN APOTHEOSIS OF THE HORSE. THEY CANNOT BUILD A MARKET-HALL WITHOUT MAKING IT DWARF THE DANUBE. MEN OF THE PLAINS, THEY HAVE DONE THE OBVIOUS IN BUILDING THEIR LATEST HOTEL UPON THEIR ONLY MOUNTAIN. HUSBANDMEN, THEY HAVE TAUGHT THEIR ARCHITECTS THAT ECONOMY AND BEAUTY OFTEN GO TOGETHER. THEIRS IS THE NATURAL BALANCE OF THE EQUESTRIAN.

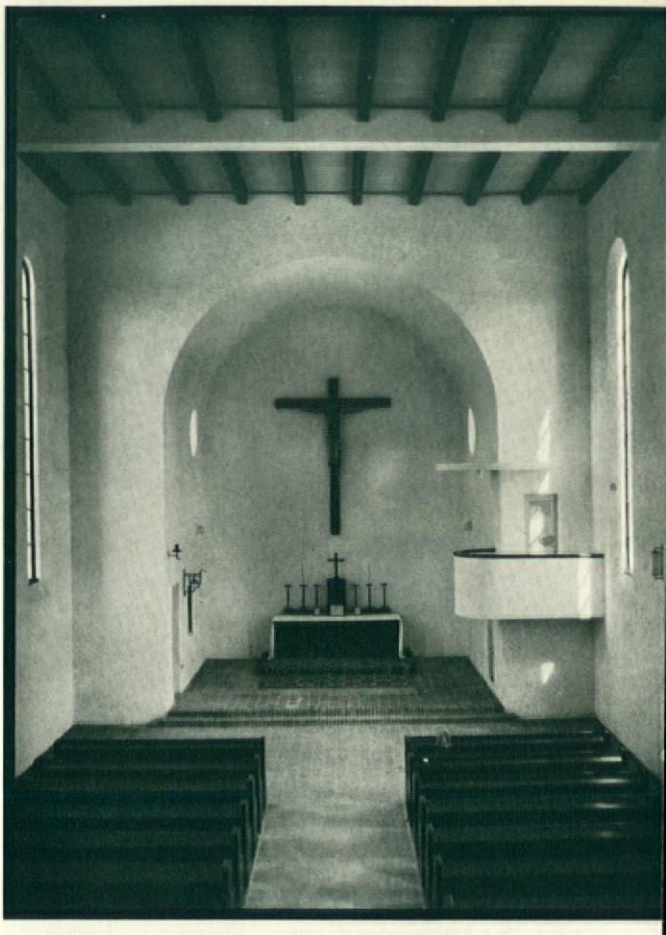
VILLAGE CHURCH AT BALATONBOGLAR

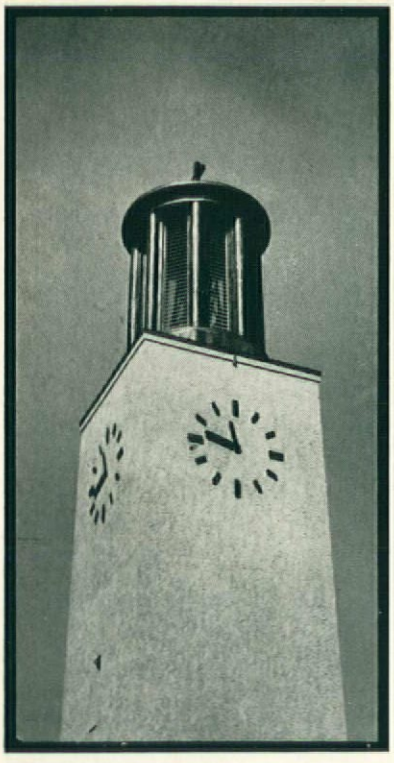
ARCHITECT IVAN KOTSIS

ITS WHITE WALLS PLANTED FIRMLY ON A HILLSIDE OVERLOOKING LAKE BALATON, THIS LITTLE CHURCH EFFECTS A SATISFACTORY COMPROMISE BETWEEN THE DEEP CONSERVATISM OF ONE OF HUNGARY'S OLDEST CROWN LANDS AND THE ASPIRING MODERNITY OF HER ARCHITECTS. IVAN KOTSIS HAS COMBINED THE DIRECT AND STRAIGHTFORWARD LINES IMPOSED BY PLEBEIAN MATERIALS WITH THE UP-POINTING FINGER OF STONE HALLOWED BY CHRISTIAN SYMBOLISM. IN NARROWING HIS WINDOWS AND INTRODUCING THIN, ENGAGED CONCRETE PILASTERS HE HAS EMPHASIZED THE HEIGHT OF HIS WALLS. EVEN THE ELONGATED CROSS ON HIS FACADE SERVES THIS ARCHITECTURAL PURPOSE. LEVELING THE ROOF GIVES HIS TOWER PROMINENCE. BOISTEROUS, STRUGGLING, HARD-DRINKING AND HARD-FISTED VILLAGERS MUST RESPECT THIS STRUCTURE, SIMPLE YET IMPOSING. . . . . AMERICAN COPPER SHEATHES THE BELFRY HELMET. GLASS BLINDS OF THE VENETIAN TYPE PROTECT THE BELLS, YET LET THE PEASANTS SEE AND HEAR THEM. FROM ACROSS THE LAKE THIS MODERN SPIRE APPEARS CAPPED BY AN HOUR GLASS—SYMBOL OF MAN'S PASSING AND OF THE CHURCH'S PERMANENCE. APART FROM TOWER, PORCH AND SACRISTY, IVAN KOTSIS'

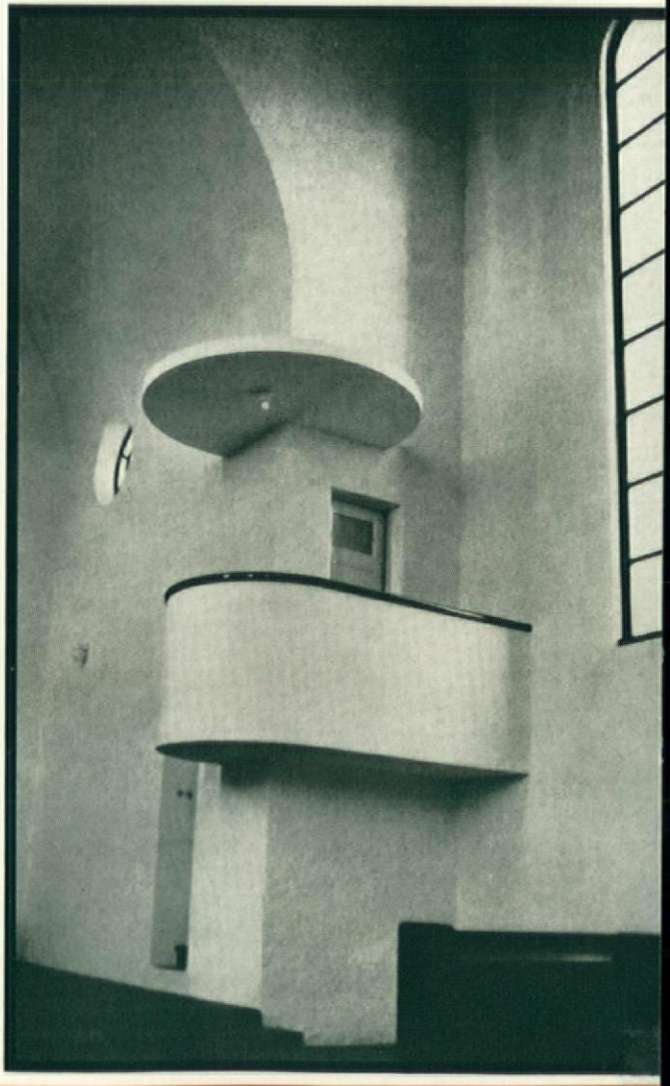


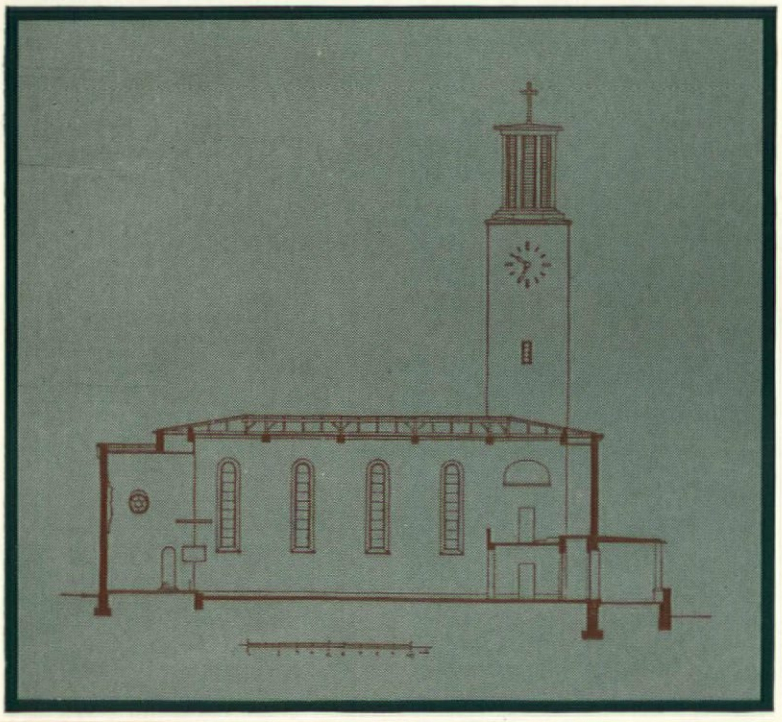


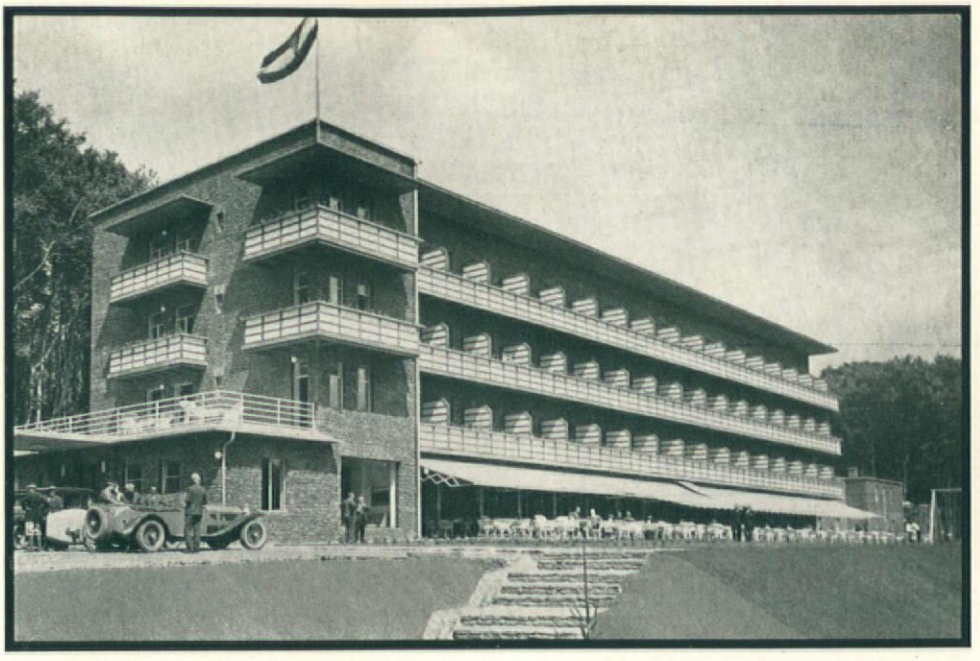




PLAN CALLS FOR A NAVE 30 METRES LONG AND 10 METRES WIDE, TO ACCOMMODATE 600 WORSHIPPERS. THE PLASTERED WALLS, WHICH ARE ROUGH-CAST ON THE OUTSIDE, ARE SMOOTH AND WHITEWASHED ON THE INTERIOR. DEEP BRICK-RED CLINKER PAVES THE FLOOR. BENCHES AND BEAMS HAVE BEEN CUT FROM BLACK HARDWOOD. SIMPLICITY IS THE ARCHITECT'S AIM THROUGHOUT AND THIS VERY SIMPLICITY GIVES AN AUSTERE DIGNITY TO HIS LITTLE CHAPEL.



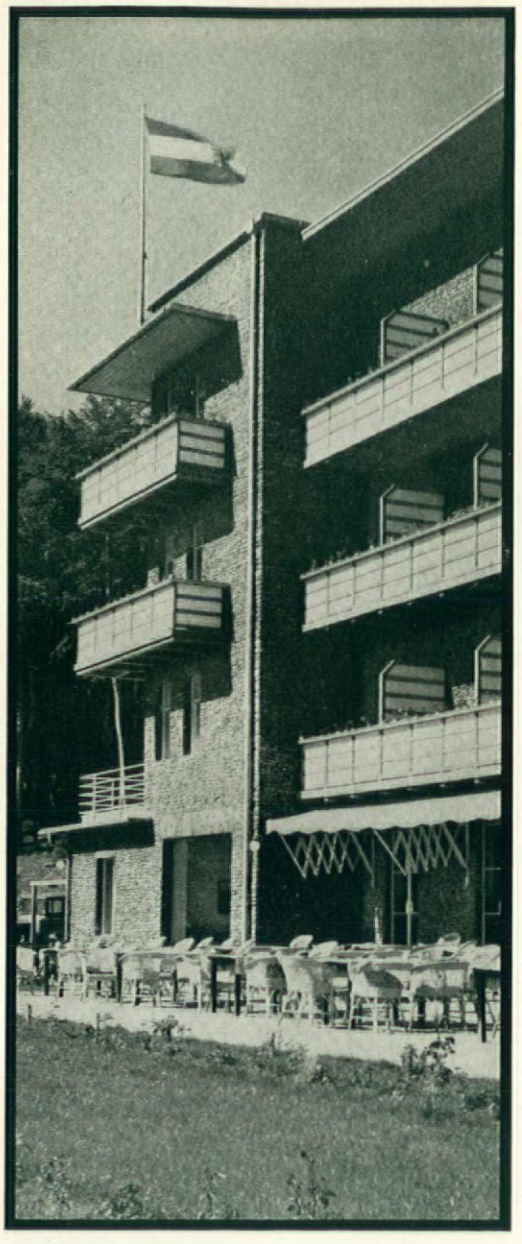




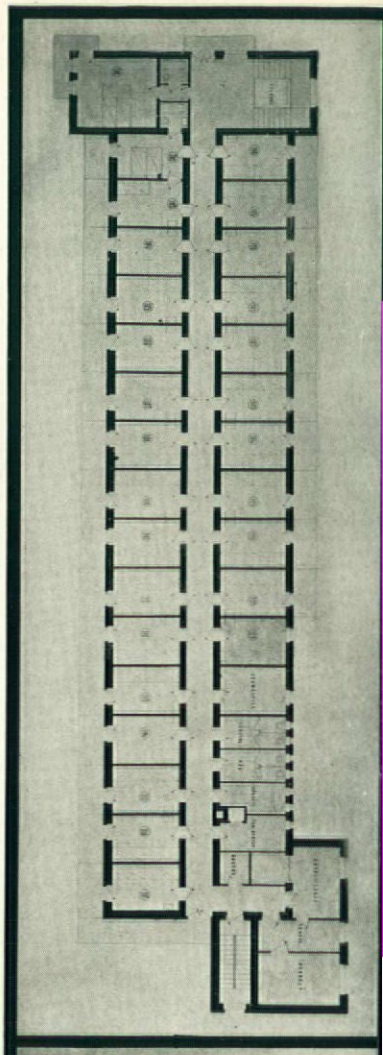
THE KÉKES HOTEL

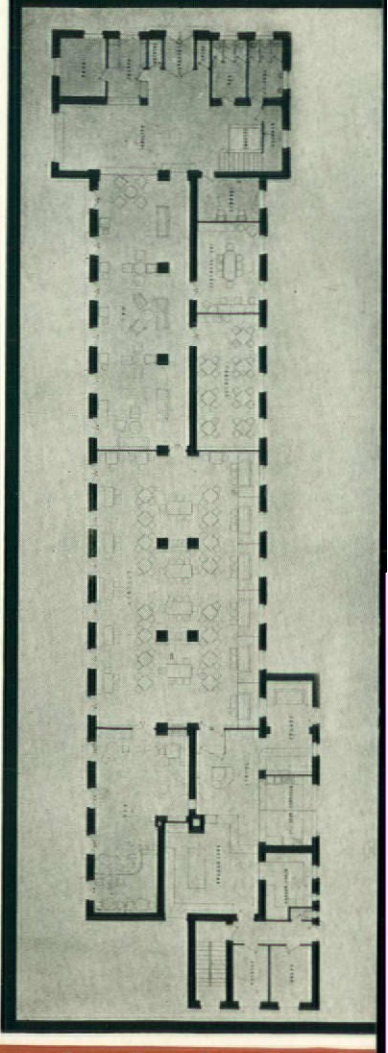
ARCHITECTS LADISLAUS CZONKA AND LADISLAUS MISKOLCZY

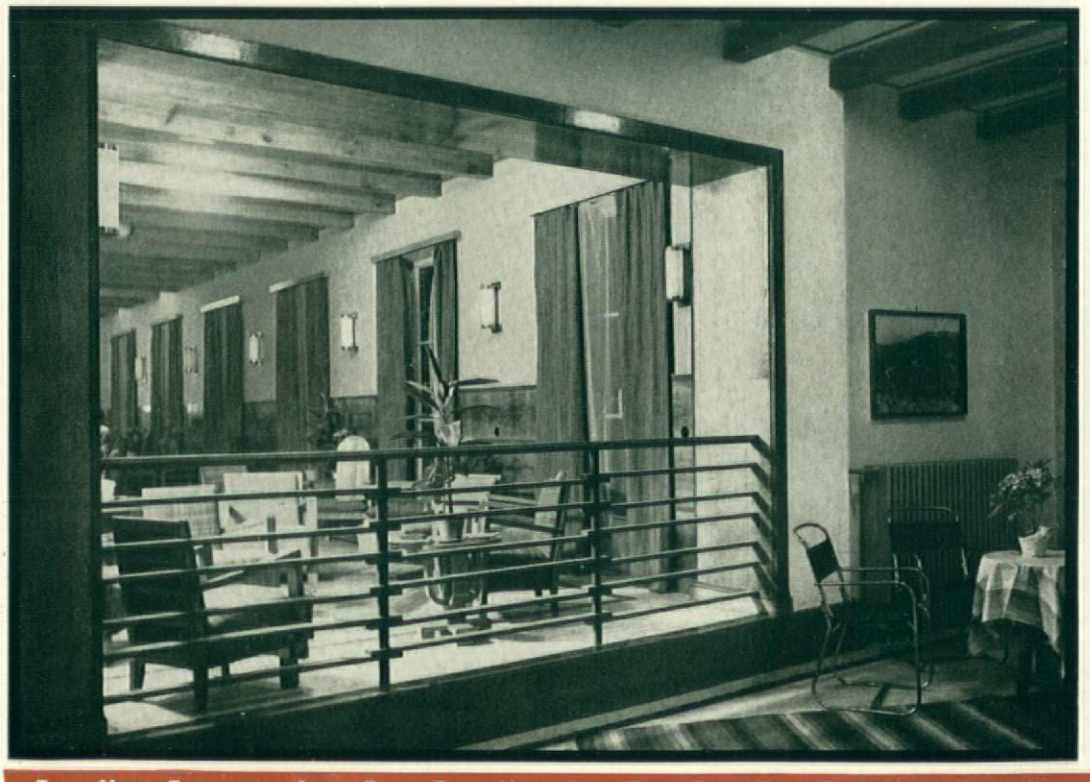
PERCHED AT AN ELEVATION OF 1,000 METRES ON THE CREST OF HUNGARY'S MATRA RANGE, THE HOTEL KÉKES LIES HIGHER THAN ANY OTHER STRUCTURE IN THE COUNTRY. AS A MOUNTAIN RESORT IT IS OF INTEREST NOT ONLY FOR ITS FELICITIES OF INSTALLATION BUT ALSO FOR ITS USE OF LOCAL MATERIALS TO EXCELLENT ADVANTAGE. ANDASITE, AN EASILY CLEAVABLE, HIGHLY ORNAMENTAL NATIVE STONE WHICH DOES NOT NEED TO BE POLISHED OR DRESSED, HAS BEEN TAKEN FROM NEIGHBORING QUARRIES TO MAKE THE WALLS. ROOFS THROUGHOUT OF OAKEN BEAMS AND PLANKS, FELLED IN THE NEARBY FOREST AND SHAPED AT A CONVENIENT SAW-MILL, RETAIN THE INTEGRITY OF LOCAL TRADITION.

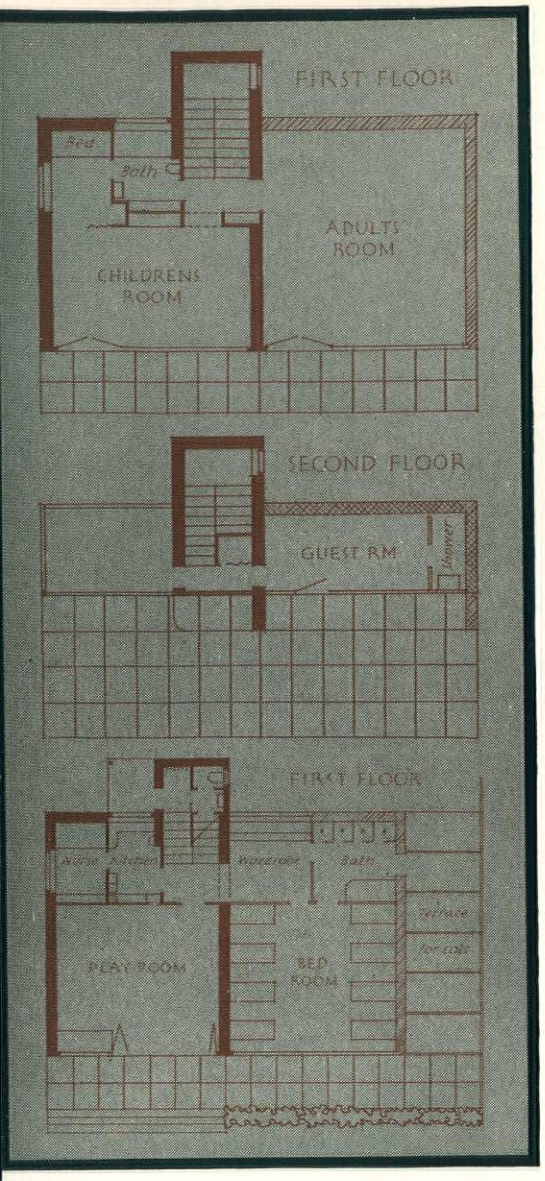


ARCHITECTS LADISLAUS CZONKA AND LADISLAUS MISKOLCZY HAVE MADE A VIRTUE OF NECESSITY. BECAUSE THEIR HOTEL IS REMOTE FROM OTHER CENTRES, SOCIAL AND AMUSEMENT ROOMS HAVE HAD TO BE MANY AND SPACIOUS. A KEEN APPRECIATION OF RHYTHMS GOVERNS THE INTERIOR DECORATION. THE AIR CONDITIONING PLANT, USING STEAM HEAT, HAS BEEN ADAPTED TO OPERATE NOT ON COAL, GAS, OR OIL FUEL, BUT ON BEECH CORD-LENGTHS FROM THE WOOD WHICH GROWS CLOSE UP TO THE VERY DOORS. ISOLATION HAS IN NO WISE INJURED THE SUCCESS OR IMPAIRED THE ECONOMY OF THIS BUILDING VENTURE.





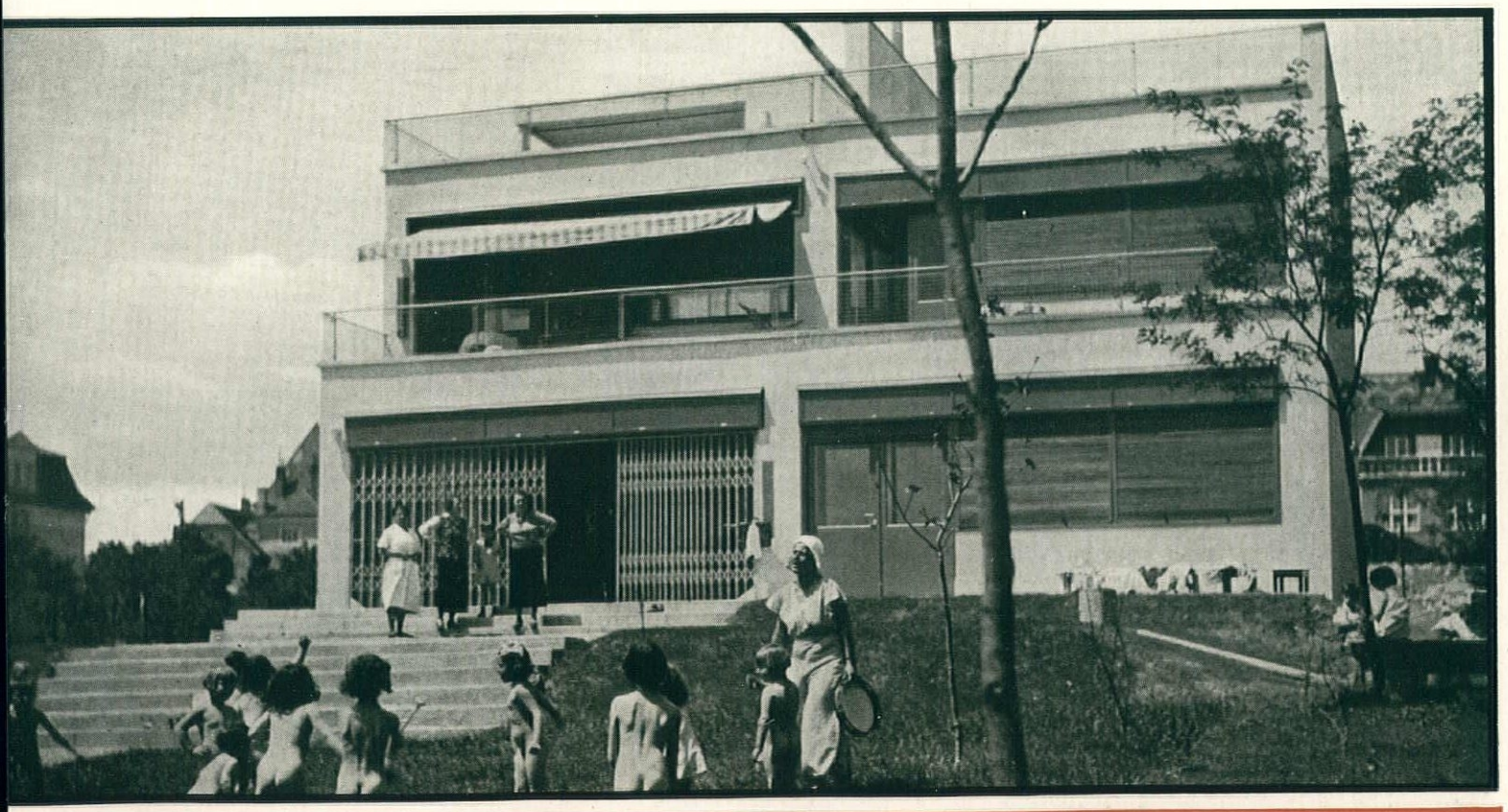


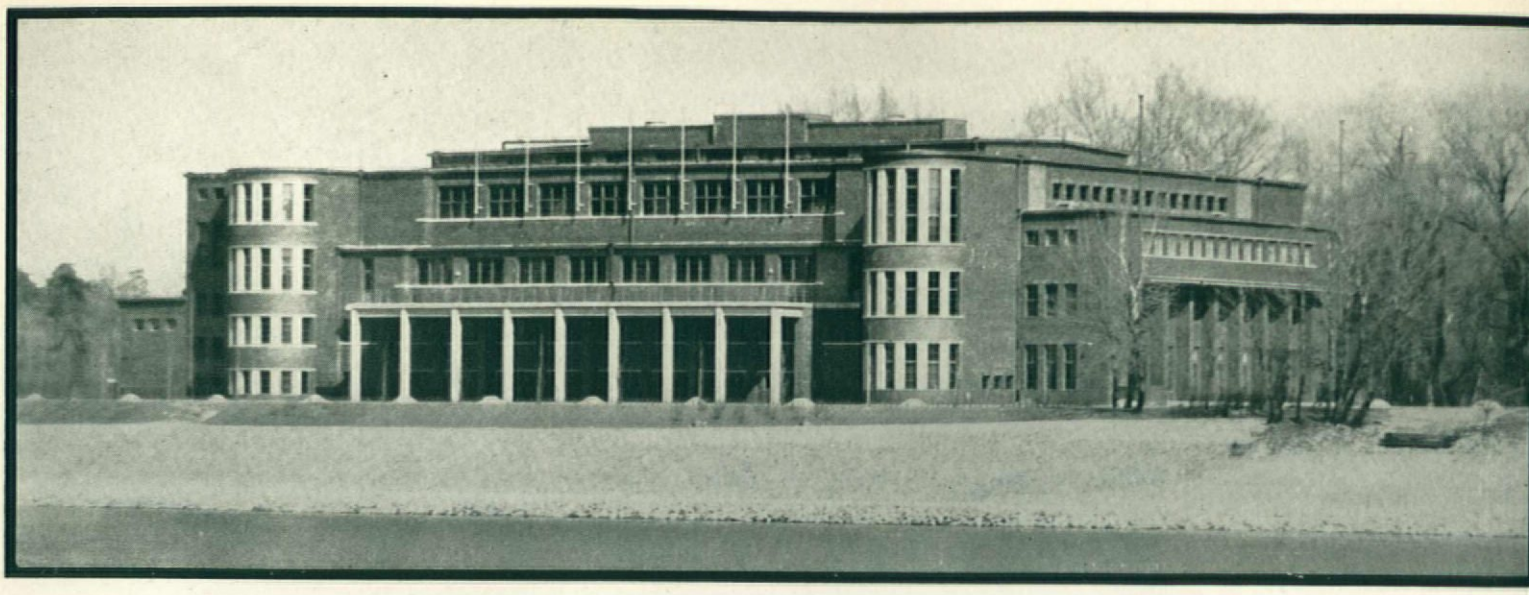


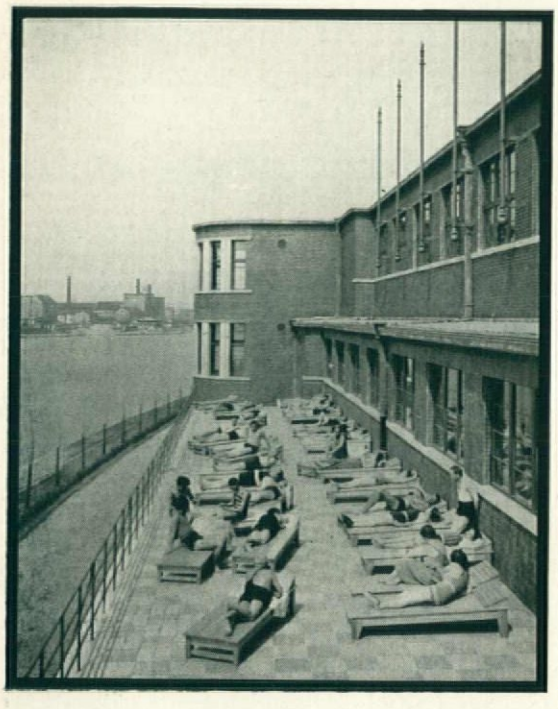
THE "GROWING HOUSE" AS KINDERGARTEN

ARCHITECT ZOLTAN REVESZ

FOR ITS "GROWING HOUSE" GERMANY HAS UTILIZED COPPER, AUSTRIA WOOD, AND HUNGARY REENFORCED CONCRETE. ZOLTAN REVESZ HAS CONSTRUCTED A SOLID, RATIONAL, FOUR-SQUARE BUILDING OF THREE STORIES, WITH WALLS OF HOLLOW BRICK, TERRACES AND STAIRWAYS OF WHITE CEMENT BLOCKS, AND ROOF OF SPECIAL ASPHALT PLATES LAID IN TAR. "GROWING HOUSES" SHOULD POSSESS AN ARCHITECTONIC COMPLETENESS EVEN IN THEIR POLLIWOG STAGES.



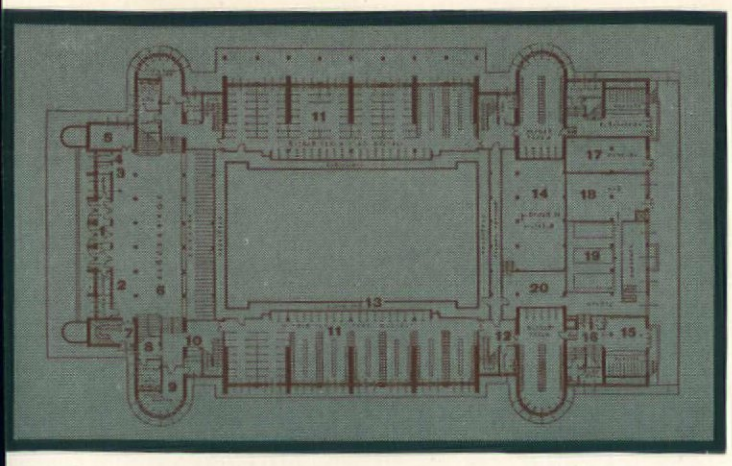


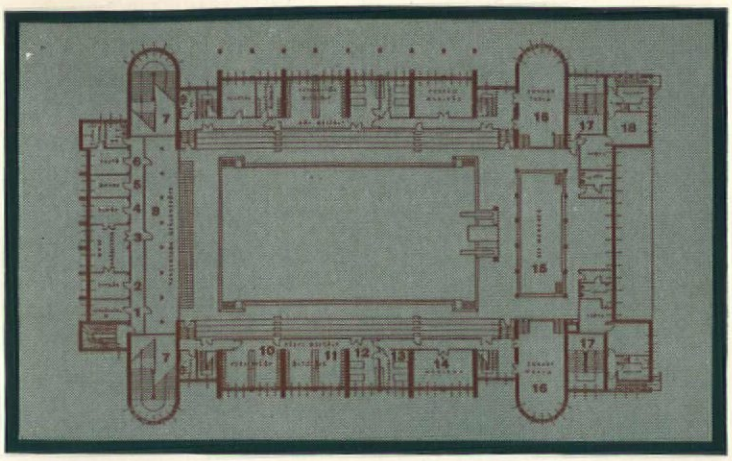


NATIONAL SWIMMING-HALL

ARCHITECT ALFRED HAJ

PLANNED FOR A MULT TUDE OF USES, THE N TIONAL SWIMMING-HA ON ST. MARGARET'S ISLAN HAS ALSO IN DESIGN T CONFORM TO A MULTITUD OF CONFLICTING REQUIR MENTS. SUN TERRAC HAVE IMPOSED A HOR ZONTAL MASSING O STRUCTURAL GROUPS T COMPLEMENT THE VERT CAL. WHILE ONE SIDE O THE BUILDING RECEIVES MONUMENTAL TREATMEN IN ORDER NOT TO B DWARFED BY THE VA STRETCH OF THE DANUB IT HAS BEEN NECESSAR FOR ANOTHER TO PRESEN A POWERFULLY SCUL TURED FRONT TO TH NORTHEAST WIND AGAINST WHICH IT MUS ACT AS STORM-BREAKE FOR YET ANOTHER TO B SIMPLIFIED SO AS NOT T DISTURB THE NATURA BEAUTY OF THE SU





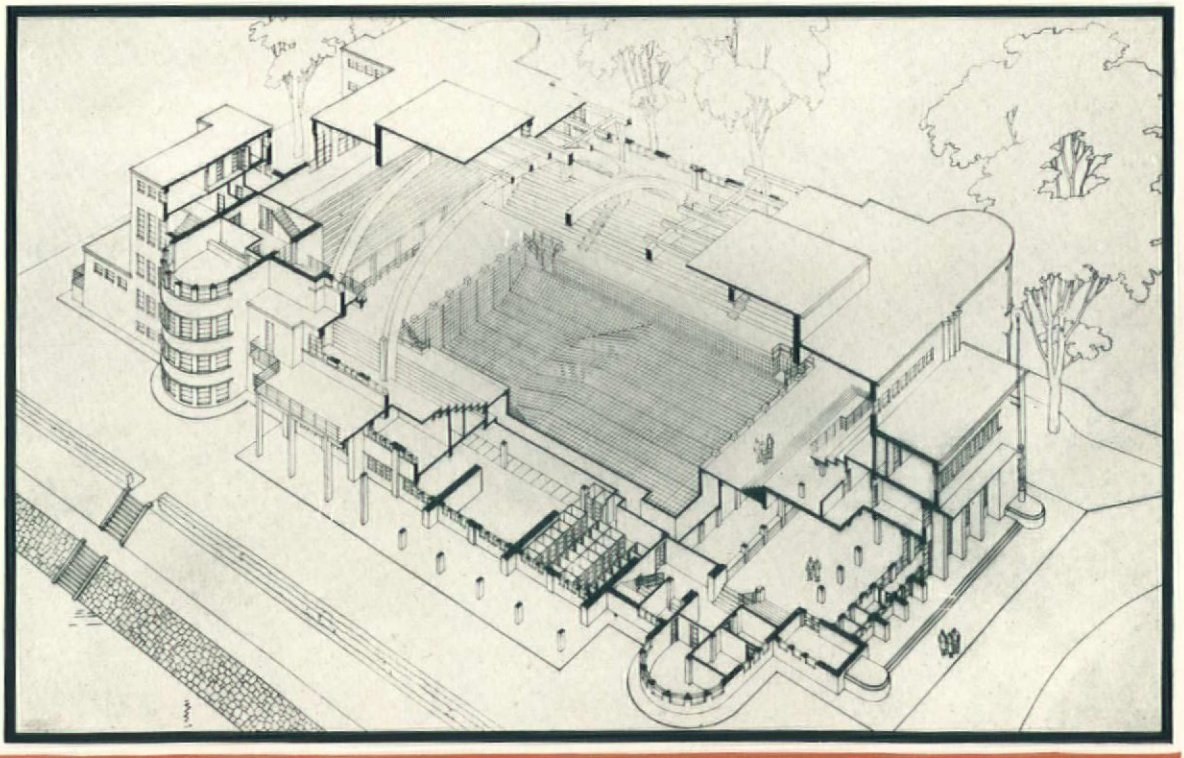
ROUNDING PARK, AND FINALLY FOR THE FACADE ITSELF TO UNITE IN MAIN ENTRANCE AND VESTIBULE THOSE FORMS IMPOSED BY MODERN CLINKER AND ONLY MADE POSSIBLE THROUGH ITS USE. THE NATURAL GRAY-BROWN OF THE TWICE-BAKED BRICKS FITS HARMONIOUSLY INTO THE GREEN BACKGROUND OF THE FOLIAGE. TWO PROBLEMS DOMINATE THIS INTERIOR: ACCOMMODATING 3,000 SPECTATORS AND CONSTRUCTING A POOL FOR WHICH THE DIMENSIONS HAVE BEEN FIXED BY SPORT REGULATIONS. AMPLE PASSAGEWAY HAS BEEN ASSURED FOR CROWDS CHARACTERISTICALLY IMPATIENT AND IMPULSIVE. HEATING AND VENTILATION HAVE BEEN INSTALLED TO SATISFY FULLY DRESSED ONLOOKERS AS WELL AS STRIPPED AND DRIPPING ATHLETES. AS IF INSPIRED BY THE RIBS OF AN UPTURNED DANUBE SHIP, ARCHITECT HAJÓS HAS THROWN ARCHES WITH A 30 METRE SPAN ACROSS HIS AQUATIC ARENA, AND BUTTRESSED THEM FROM REENFORCED CONCRETE PIERS DEEPLY ROOTED IN RIVER GRAVEL.

GROUND FLOOR

1. Porticoes
2. Cashier
3. Safe deposit
4. Telephone booth
5. Inspector's room
6. Cloakroom
7. Staircase leading to offices
8. Staircase leading to grandstand
9. Linen closets
10. Linen management
11. Dressing rooms (Cabins and lockers) for women and men
12. Staircase leading to hall
13. Pipeway
14. Filtering-tank
15. Spectators' cloakroom
16. Stairway leading to galleries
17. Transformer
18. Bunker
19. Boilers
20. Utensils

UPPER FLOOR

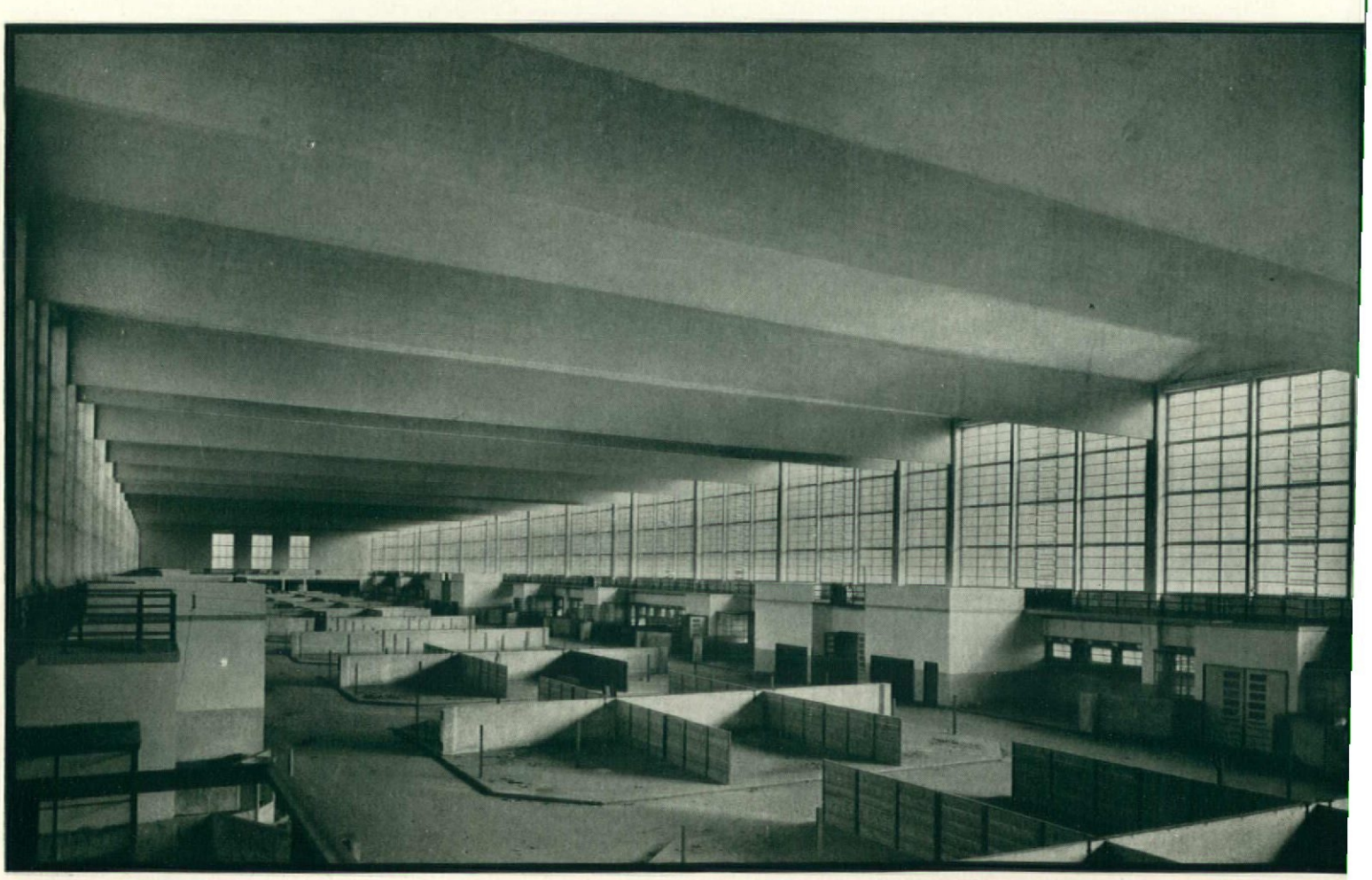
1. Wireless
2-4. Manager's rooms
5. Doctor's room
6. Room for representatives of the press
7. Stairway leading to grand stand
8. Jury platform
9. Swimming pool; 18 x 33.3m
10-11. Dressing rooms for members of club, ladies and gentlemen
12-13. Massage rooms
14. Hairdresser's shop
15. Children's pool
16. Showers
17. Stairways

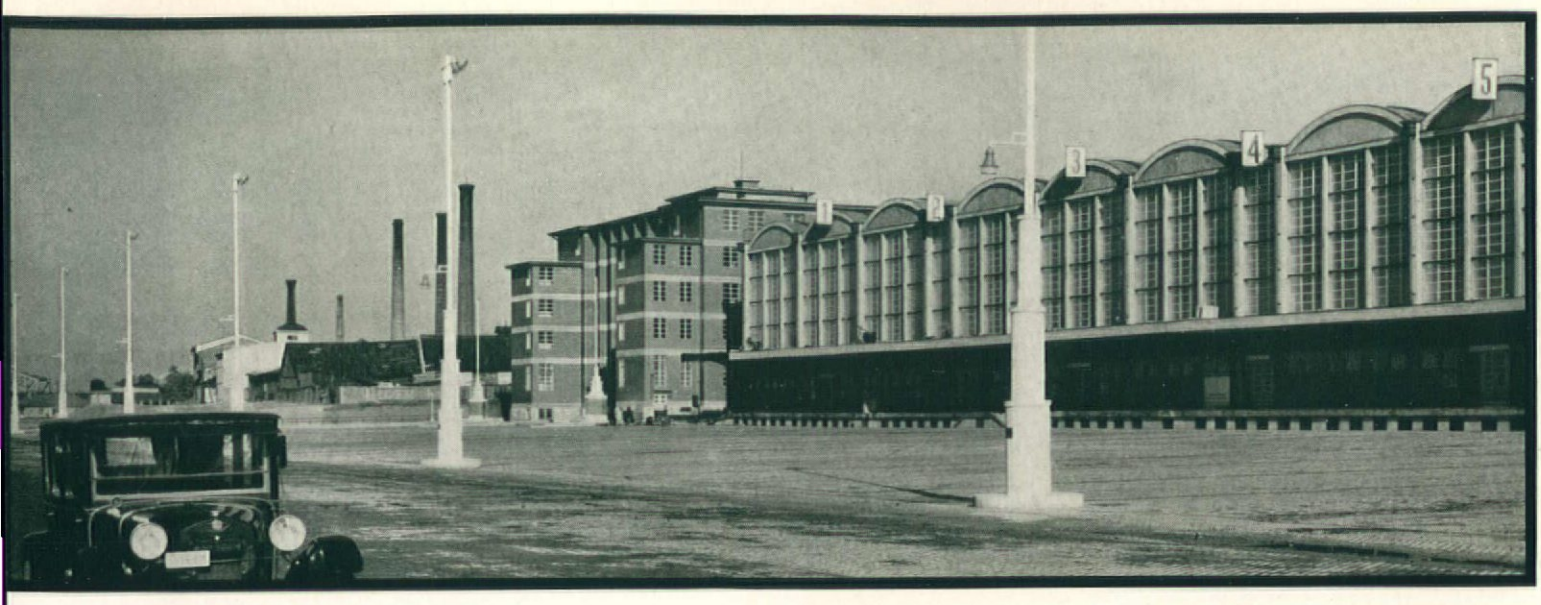


CENTRAL MARKET, BUDAPEST

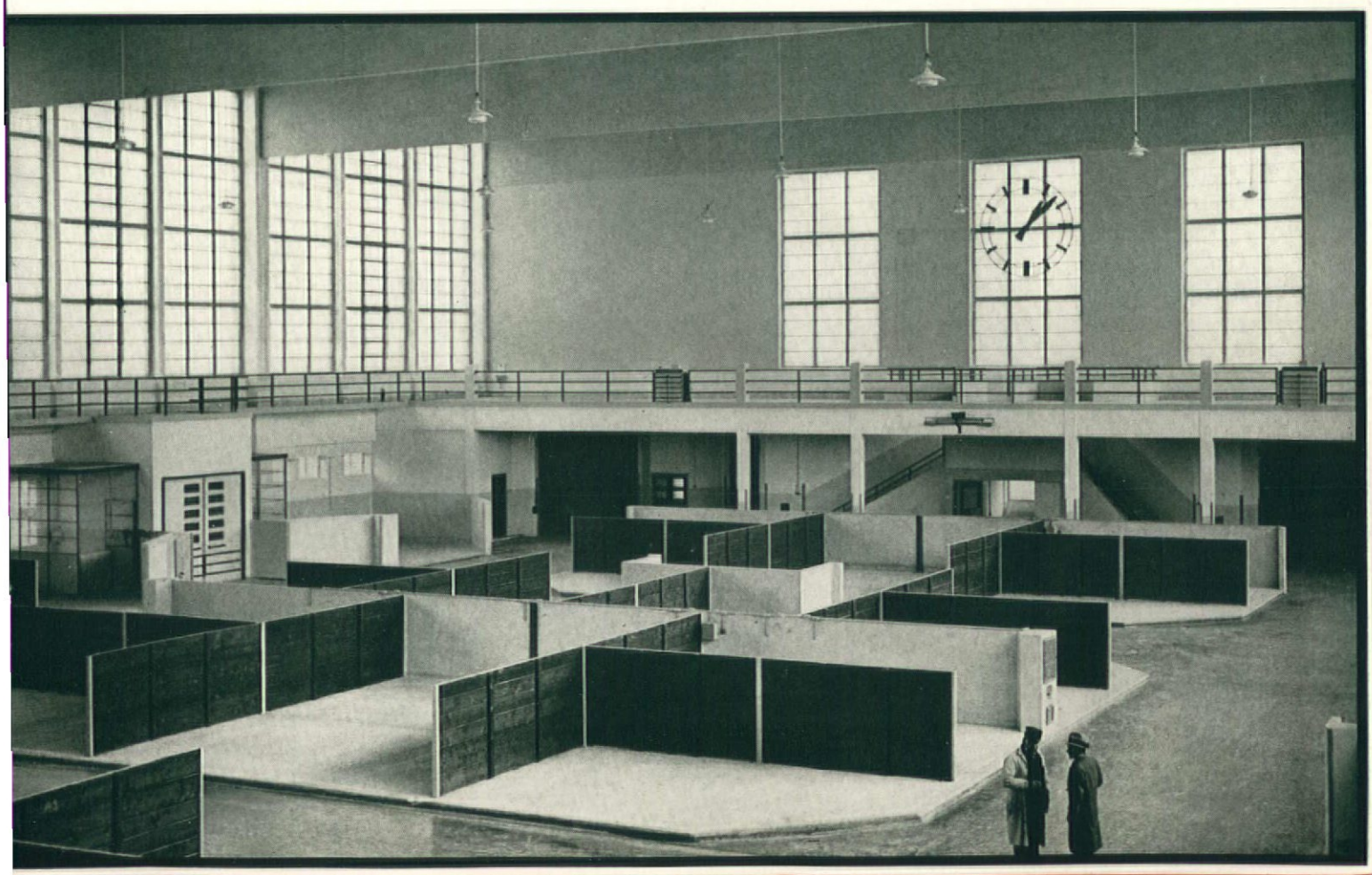
ARCHITECT ALADÁR VON MUENNICH

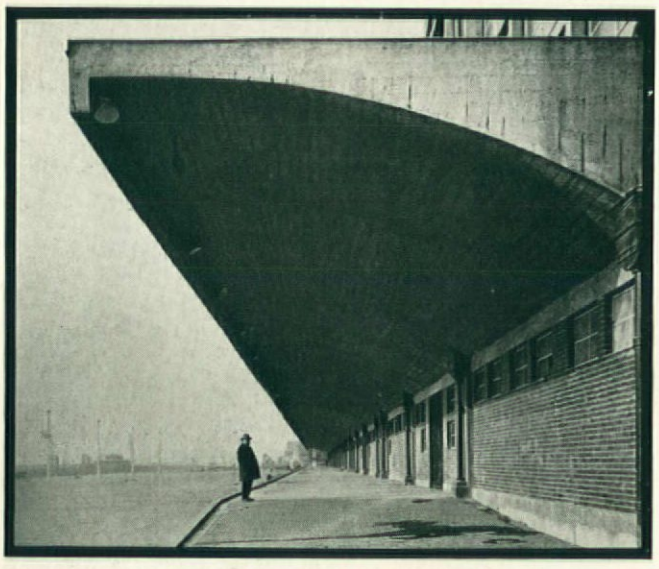
BUDAPEST HAS CENTRALIZED ITS FRUIT AND VEGETABLE MARKET IN AN IMPOSING BUILDING WHICH ENJOYS A MAJESTIC VIEW OF THE DANUBE. ITS VITAL CONTACTS WITH FARM AND ORCHARD ARE SERVED BY A SPECIAL RAILROAD STATION PLANNED TO ACCOMMODATE MORE THAN TWO HUNDRED FREIGHT CARS AND BY A SPECIAL HARBOR BUILT TO GIVE EASIER ACCESS TO THE RIVER. A PLATFORM 230 METRES LONG, FOR LOADING AND UNLOADING AUTOTRUCKS, FACILITATES THE SWIFT DELIVERY OF PERISHABLE PRODUCTS.



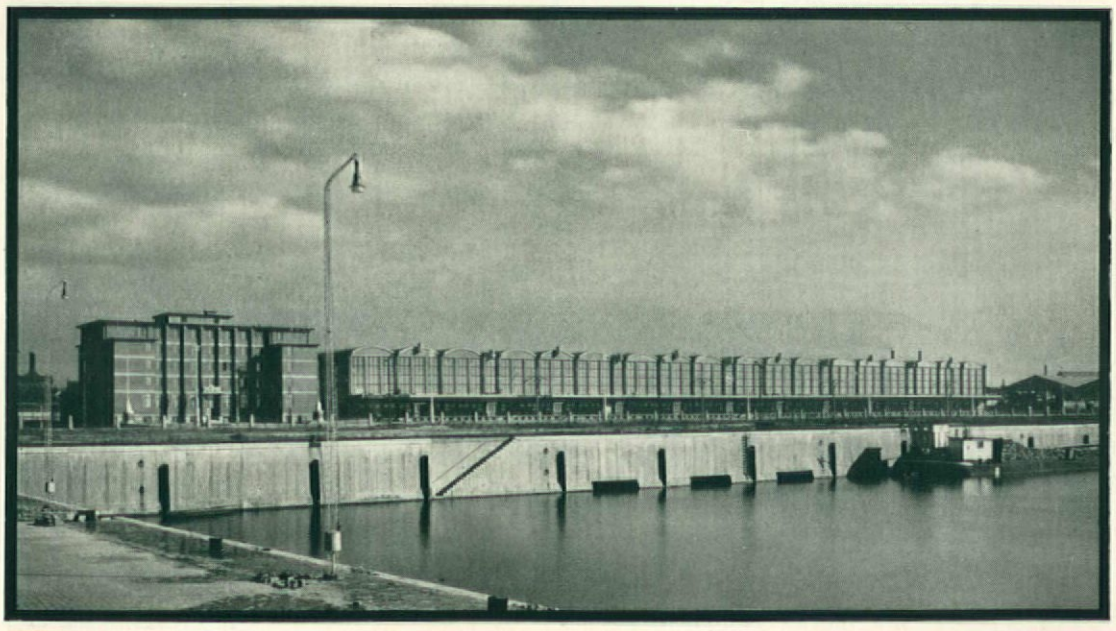


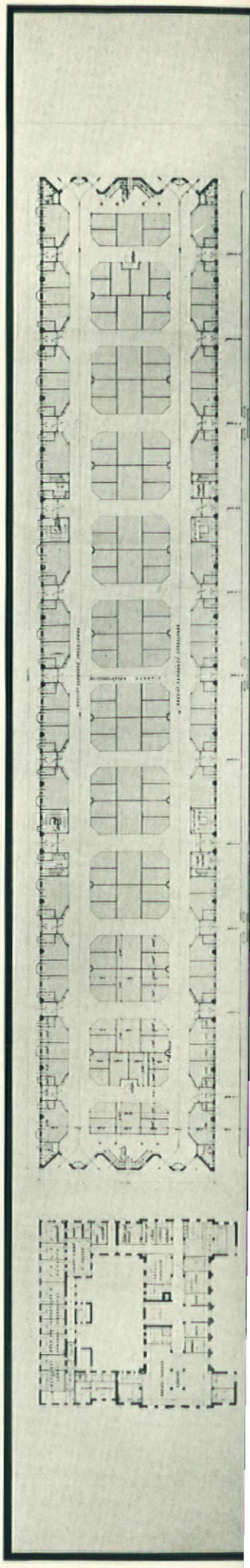
THE IMMACULATE GIANT HALL, DIVIDED NEATLY INTO MARKET STALLS, PUTS ONE IN MIND OF THE AEGEAN STABLES AFTER HERCULES HAD PERFORMED HIS LABOR. WALLS OF GLASS VENTILATORS ASSURE THE PROPER SUPPLY OF GOOD AIR AND PERMIT ABUNDANT SUNLIGHT TO ENTER. GIRDERS 42 METRES LONG SUPPORT THE REENFORCED CONCRETE ROOF. FREIGHT ELEVATORS, STAIRS, AND RAMPS COMMUNICATE WITH THE CELLAR WHICH IS SPACIOUS ENOUGH TO PERMIT TRUCKS AND WAGONS TO ENTER AND DISCHARGE IN ALL KINDS OF WEATHER.





AS ESSENTIAL TO MARKETING AS ARE STALLS, DISPATCHING RAMPS AND DANUBE HARBOR, THE ADMINISTRATION BUILDING SHELTERS A POST-OFFICE, A BANK AND A RESTAURANT, AND RENTS OFFICE-SUITES TO WHOLESALE MERCHANTS. BUILT ABOUT A REENFORCED CONCRETE FRAME, IT IS FINISHED IN CLINKER, WITH WINDOW-FRAMES OF STEEL. THROUGHOUT THE INTERIOR, ALL FLOORS ARE CARPETED WITH RUBBER.

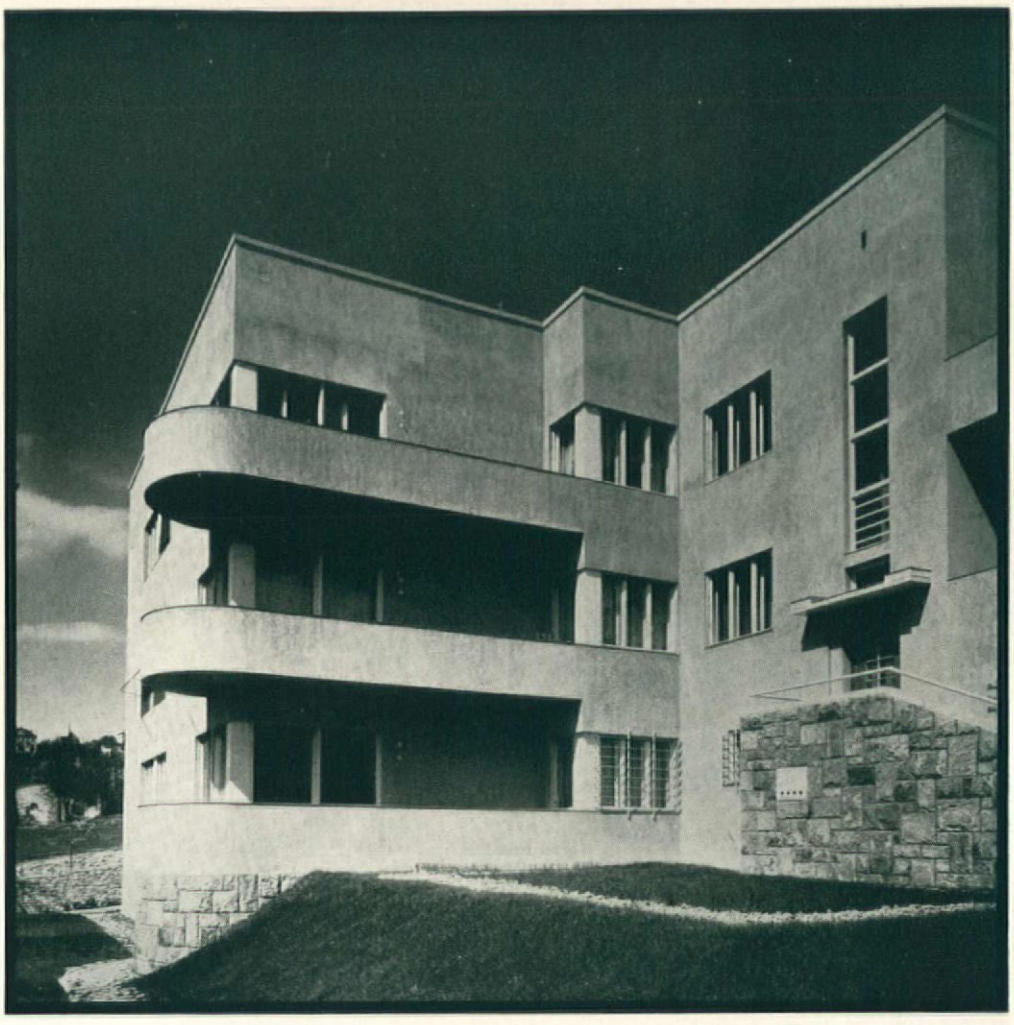




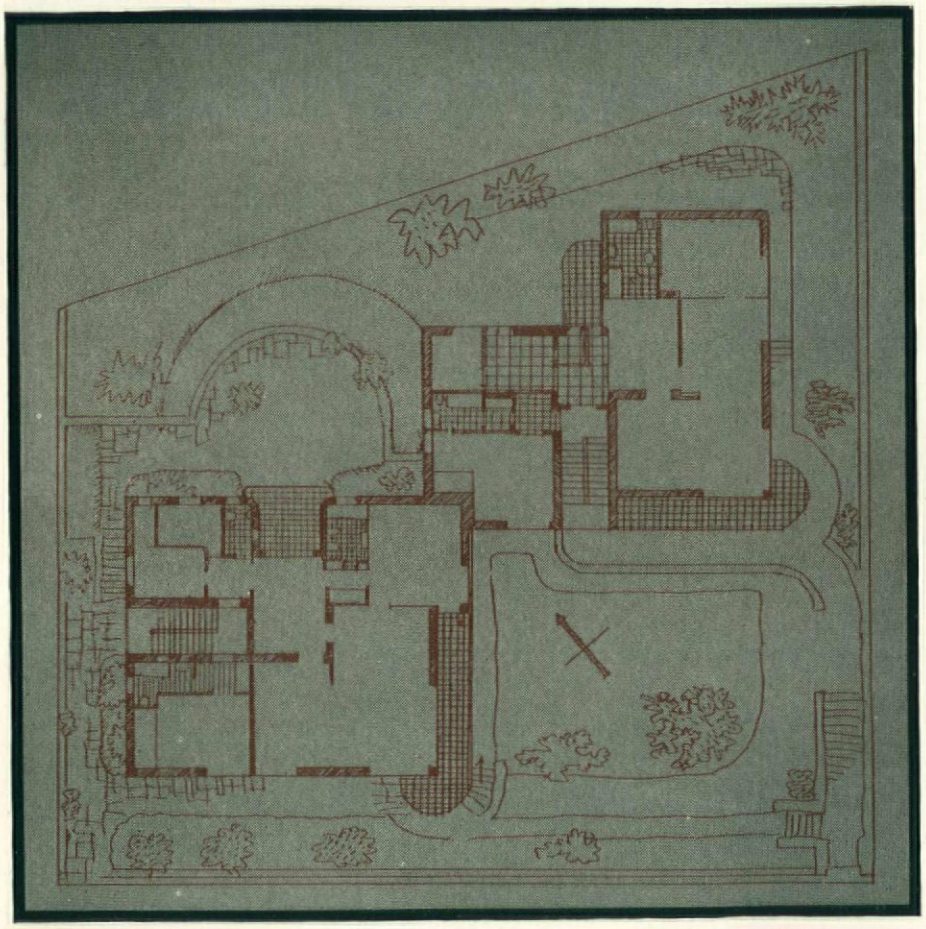
APARTMENT HOUSE

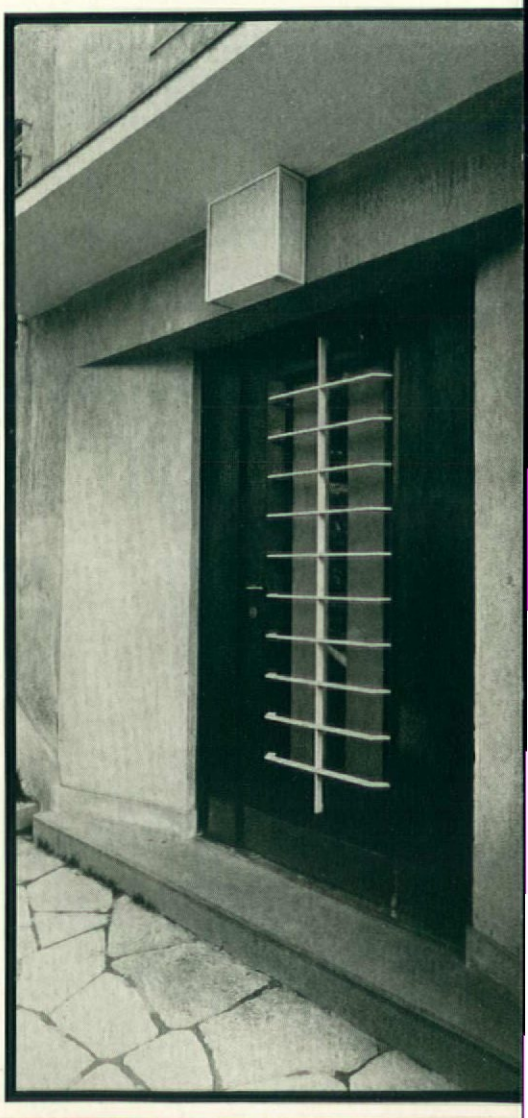
ARCHITECT LADISLAUS LAUBER

CONTAINING FIVE FAMILY DWELLINGS AND FIVE GARCONNIÈRES, THIS APARTMENT VILLA COST, WITH ITS 5,000 CUBIC METRES, ONLY ABOUT $25,000 TO CONSTRUCT. IT IS BUILT OF HOLLOW TILES ON A SKELETON OF REENFORCED CONCRETE. A FOUNDATION OF ROUGH QUADRANGULAR NATIVE STONE EMPHASIZES THE SMOOTH PLASTERED WALLS AND ROUNDED BALCONIES. ECONOMY OF MATERIAL AND LINE HAS RESULTED IN A PLEASING, EVEN DISTINGUISHED, SIMPLICITY.



INEXPENSIVE MIDDLE CLASS FLATS DO NOT NEED TO BE UNINTERESTING. FLAGGED PATHS IN THE GARDEN, BROAD WINDOWS WHERE ONLY BLANK WALLS USED TO BE, AN ENTRANCE WHERE WOOD AND METAL ARE WED IN HARMONIOUS MODERN DESIGN, GLASS DOORS WHICH SLIDE INSTEAD OF OPENING TO GET IN THE WAY—ALL THESE CONTRIBUTE TO THE AMENITIES OF LIFE. THREE ROOMS AND A LARGE HALL ARE LIVING SPACE ENOUGH WHEN FAMILIES CAN OVERFLOW ONTO LONG BALCONIES IN SUMMER.

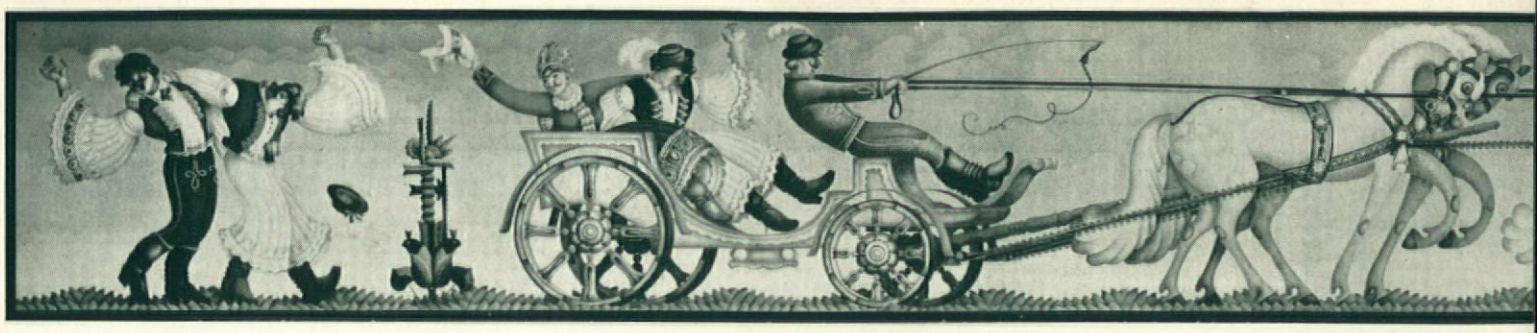


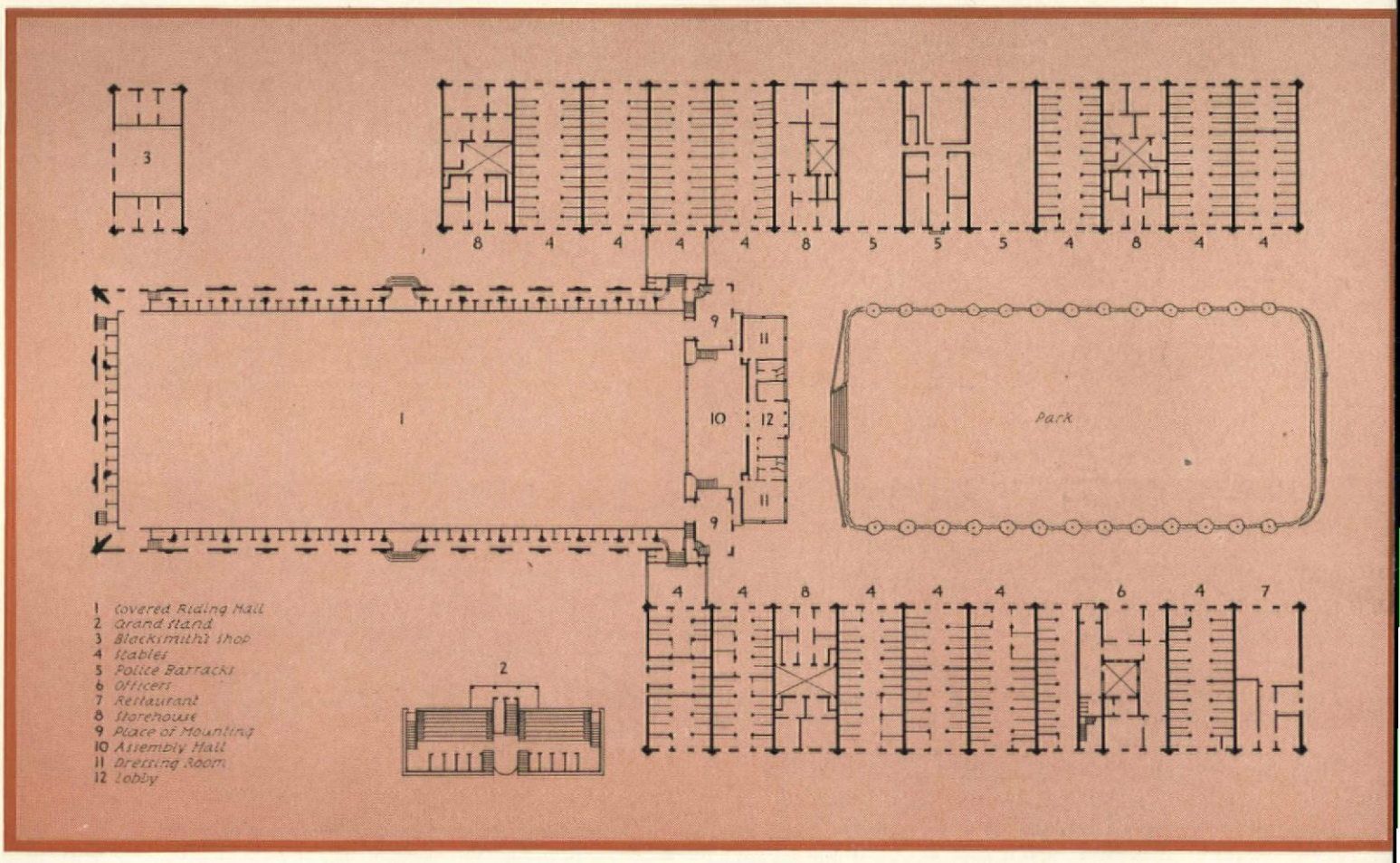


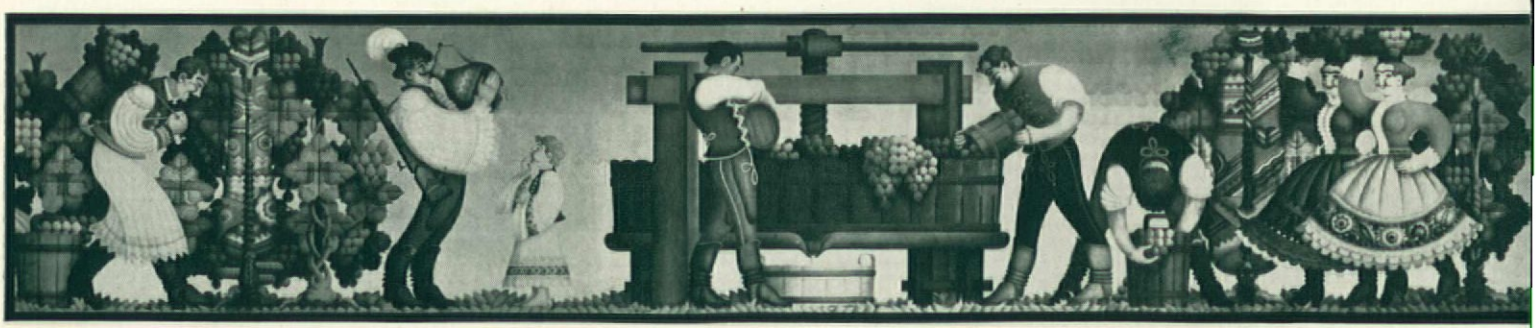
"TATTERSALL" RIDING-SCHOOL

ARCHITECT FRANZ PAULHEIM, JUN.

IN A RIDING-HALL THE ONLY THING THAT REALLY CAN BE VARIED IS THE ROOF. THE CONVENTIONAL FACADE OF BUDAPEST'S GREAT TATTERSALL BELIES A REFRESHINGLY ORIGINAL INTERIOR. CONCRETE BLOCKS NEARLY TWO YARDS HIGH SUPPORT BEAMS THAT SLOPE UPWARD, TAPERING, TO MEET MORE THAN SEVENTY FEET ABOVE THE FLOOR ALONG A WOODEN RIDGE POLE. RISING IN THREE STEPS, THE ROOF IS FACED ON THE INSIDE WITH WIRE NETTING AND A FINISH OF UNPAINTED PLASTER OF PARIS. DAYLIGHT STREAMS IN THROUGH WINDOWS FRAMED IN CONCRETE AND SET AS IN A CLERESTORY BETWEEN OR ABOVE THE TAPERING BEAMS, WHICH GAIN AN IMMENSE EFFECTIVENESS FROM THEIR ILLUMINATION.




3
8 4 4 4 4 8 5 5 5 4 8 4 4
1
9
10
11
12
Park
4 4 8 4 4 4 6 4 7
2
1 Covered Riding Hall
2 Grand Stand
3 Blacksmith's Shop
4 Stables
5 Police Barracks
6 Officers
7 Restaurant
8 Storehouse
9 Place of Mounting
10 Assembly Hall
11 Dressing Room
12 Lobby



..., Harvey Patteson

11,000,000,000 GALLONS OF MILK

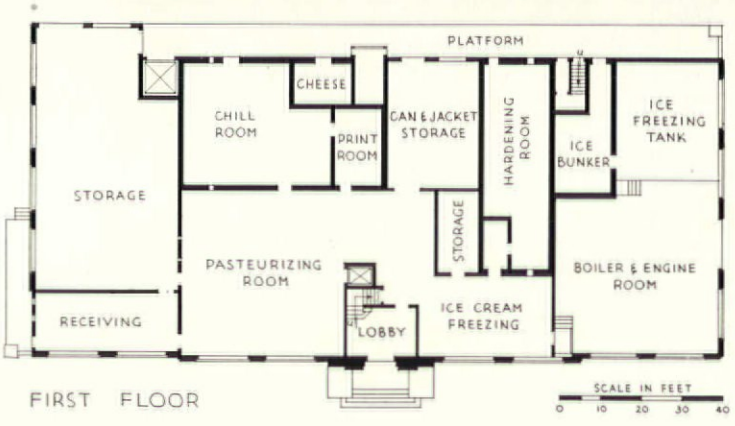
are produced annually in the U. S. This San Antonio, Texas, dairy plant meets its delicate demands. How lactic acid and accurate temperatures dictated construction

ATLEE B. & ROBERT M. AYRES
ARCHITECTS

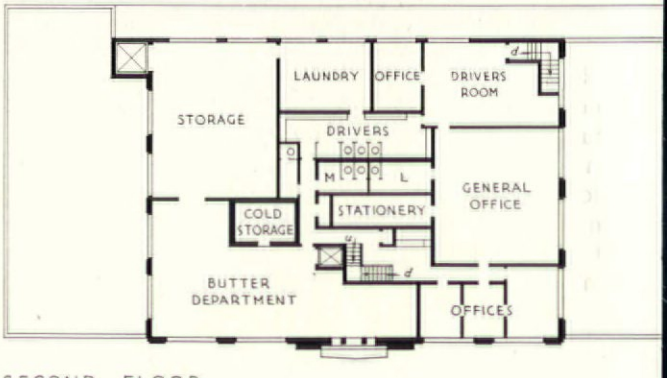
CONTRARY to lay opinion, the process of moving milk from the farm to the city kitchen is not as simple as merely pouring it from a can into a bottle. A dairy's responsibility for its products starts at the source in the country and ends in the home. Subject to regular inspections by representatives of the company and by State or local health authorities, the farmer collects milk from healthy cows by strictly sanitary methods. He delivers it in 40-quart cans to a country milk plant or ships it to a city dairy. Severe tests determine its richness, temperature, and the amount of dirt and bacteria. The better the test record, the more remuneration he receives. Economic reward for purity seems to be more persuasive than regulation and education. Although the Supreme Court of the United States has said to the contrary from the legal standpoint, the milk industry in the minds of those who benefit by it is in the nature of a public utility.

Planning a dairy plant, therefore, involves a grasp of the problems of production, the manufacture of dairy products (such as cheese and ice cream), milk and cream bottling and retail distribution for a given region. Not until familiar with the process and machinery can the architect attack the specific requirements of the building itself. The final scheme must be the result of the regional needs plus careful consideration of the functional arrangements best suited to them.

The Process. Milk is as delicate as those for whom it was originally intended; hence the less handling the better, in short, no hands may touch it until it reaches the consumer, and nothing is done to it mechanically which is not rigidly necessary.

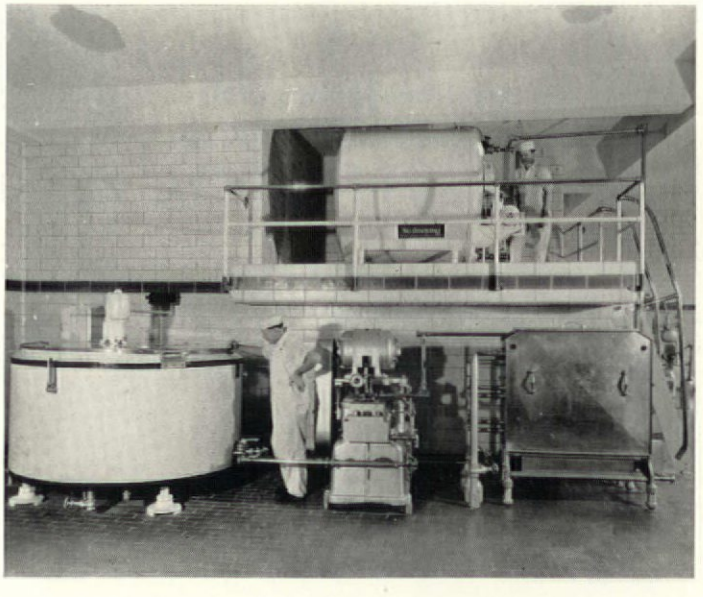


FIRST FLOOR



SECOND FLOOR

Beginning of ice cream process; (left to right) ice cream mix pasteurizer, viscolizer, cabinet cooler



Vacuum bottle filler which caps 60 quarts of milk per minute. Conveyor leads to milk chill room

Details in the process will vary from region to region. A typical dairy which treats milk efficiently is the new San Antonio, Texas, plant of the Borden Company, of which Atlee B. and Robert M. Ayres are the architects.

The building is fire-resistant throughout with interior steel columns supporting reenforced concrete floor slabs. Of monolithic concrete, the exterior walls rest on a foundation of rotary drilled piles, the bottoms of which are bell-shaped and 30 ft. down on the average. With its 20,046 sq. ft. of floor space, the plant houses the following departmental operations: (1) Milk receiving; (2) bottle receiving, washing and storing; (3) milk processing; (4) milk storage and delivery; (5) ice cream manufacturing; (6) ice cream can washing and can and jacket storage; (7) supplemental manufactured produce, space for cottage cheese, condensed milk, and butter; (8) laundry; (9) laboratory; (10) administrative offices and services as seen on the plans.

When operating at capacity, the plant can receive 10,000 gallons of raw milk per day, can turn out 1,600 gallons of ice cream and can manufacture fifteen tons of ice each 24 hours.

Raw milk from the producers enters the receiving station on the ground floor, whence it travels on a gravity roller conveyor to the adjoining testing station. Here samples of it undergo a butter fat test in a centrifuge. At the same moment it is weighed. (Raw milk is bought by weight, not by volume.) If it meets the requirements, it is lifted by a centrifugal pump into one of two 600-gallon coil storage vats in the pasteurizing room adjoining the receiving station. Accepted milk must be below 50° Fahrenheit; in the storage vats it is reduced to 40°. From here it is pumped into a high-temperature, short-hold pasteurizer. It then passes at once to a vacuum filler which caps 60 quarts of milk a minute, maintaining them at a low temperature. Then to the chill room.

A 1,200-gallon per hour capacity separator is the nucleus of the cream department. Skimmed milk drops into a 600-gallon coil vat. A surface cooler regulates the cream temperature.

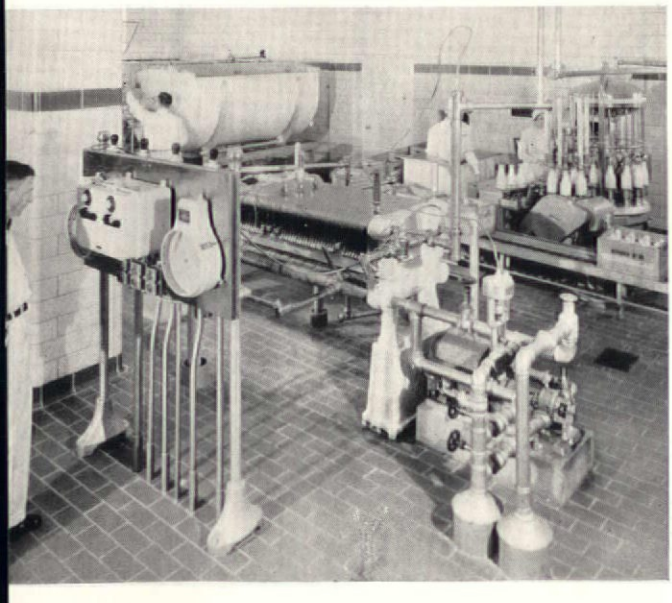
Opposite the vacuum filler lies the bottle washing room, equipped with a hydro washer capable of cleaning 60 bottles per minute. After a case conveyor has fed the bottles into the washer, a covered conveyor brings them under the filler nipples. Once sealed, the bottles pass through what is known as a milk door into a cold storage vault, where uniform temperature is maintained by a unit type cooler system. Brine coils are concentrated into two cabinets through which air circulates. So automatic is the system that the temperature remains between 34° and 36° Fahrenheit.

Almost a small factory unto itself, the ice cream manufacturing room is equipped with a 500-gallon capacity stainless steel mixer and pasteurizing vat. From this, the mix passes at a temperature of 150° Fahrenheit to a viscolizer, where it acquires a smooth even texture. It next reaches a cabinet cooler and is lifted by a centrifugal pump into one of two 500-gallon storage vats. The final step involves passing through an instant freezer, whence it emerges in a few seconds ready for distribution.

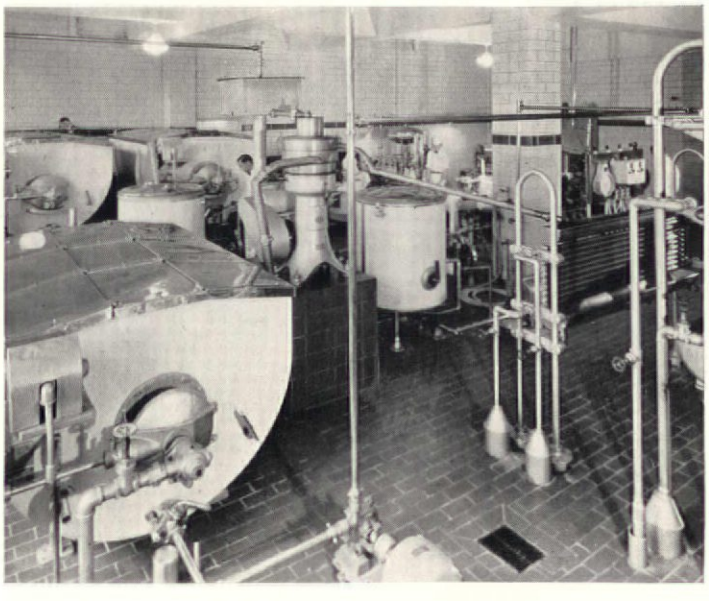
The east end of the first floor supplies necessary power and refrigeration. A 50 h.p. boiler fired by gas but equipped for future change to oil furnishes steam. In addition there are three ammonia compressors for refrigeration and one compressor for chilling the brine. These ice-making facilities are for the use of the company and its milk producers. The steam lines leading from the power room, and all water and ammonia lines in the building are welded.

The milk, cheese and print rooms are maintained at a 34° temperature by forced air unit coolers. Five inches of cork insulation cover walls, floors and ceiling. As the ice cream hardening room must be

Milk is raised to higher temperature for a few seconds in flash pasteurizer just behind the control panel



Skim milk vat, cream separator, pasteurizer and coolers in the pasteurizing room on the main floor



kept at 10° below zero, ten inches of cork cover the floors and nine inches the walls and ceiling. An overhead flooded coil system developed by Borden engineers maintains an even temperature.

Exterior. The simple facets of the exterior were molded with plywood forms having construction joints at designated intervals. Although the color scheme is a white cement and lime dash coat, starting from an ochre strip three feet above the base line, the effect in the brilliant Southwestern light is coloristic, of pleasantly contrasting light and shade. The front entrance steps are a light red; around this entrance the trim is black glazed tile with a small dash of color. Black enamel covers the entrance doors. The roof of the tower above is lemon yellow tile. All the steel sash is painted aluminum.

Interior. Throughout the manufacturing rooms the walls are finished with glazed terra cotta tile, dark green at the base, the wainscoting light buff with a green cap, the balance of the wall being white. Ceilings are finished with portland cement plaster painted white. A small entrance lobby is an exception to this, for it has a rust color terrazzo floor with a red border and a black base with a structural glass tile set off by chromium bands. Above, the walls and ceiling are a light lemon yellow.

With the exception of the lobby, the entire first floor is devoted to manufacturing and storage. The second floor contains space for private offices, drivers' rooms, locker rooms, toilet rooms, a laundry, and butter manufacture and storage rooms. The offices have colored cement floors and cream walls and ceilings. Ventilated and lighted by skylights, all toilet and locker rooms are finished with tile. Space on the third floor in the tower is devoted to a laboratory lighted by sash on three sides. All of the steel windows in the dairy contain sections covered with aluminum screens.

In addition to the local production demands the architects had to meet the following specific requirements:

1. To employ very impervious floor tile and small mortar joints in order to serve prevalent lactic acid conditions. The mortar is a mixture of portland cement and sand.

2. To supply many floor drains so as to dispose of the water rapidly. During plant operation hoses are running almost continually cleaning machines, etc. On an average each drain takes the water from a rectangle 19 x 20 ft. on a side. Drains allow for possible leakage through the joints in the floor tile. (See diagram.)

3. To use double slabs with membrane waterproofing between in all processing and cold room floors. A felt or fiber membrane was used. In the cross section of the drain it is clearly seen how water that might leak through tile joints runs along the top of the waterproofing until it enters the drain through weep holes.

4. To provide large openings permitting machinery replacement in any part of the plant.

5. To locate structural columns with due consideration to machine and cold rooms.

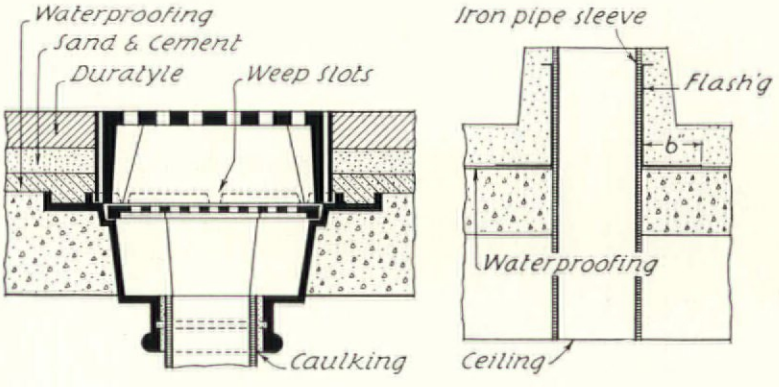
6. To conceal all piping and conduits, leaving them accessible in case of change in motors or machinery.

7. To use brass sleeves around all pipes and conduits coming through slabs, sleeves to extend above floors. The sleeve is first fastened firmly into the concrete floor base, and is then made watertight with copper flashing on the waterproof membrane. The finished floor forms an angle which is carried up to the top of the sleeve. Unless the floor is flooded to a height above this, it is absolutely watertight.

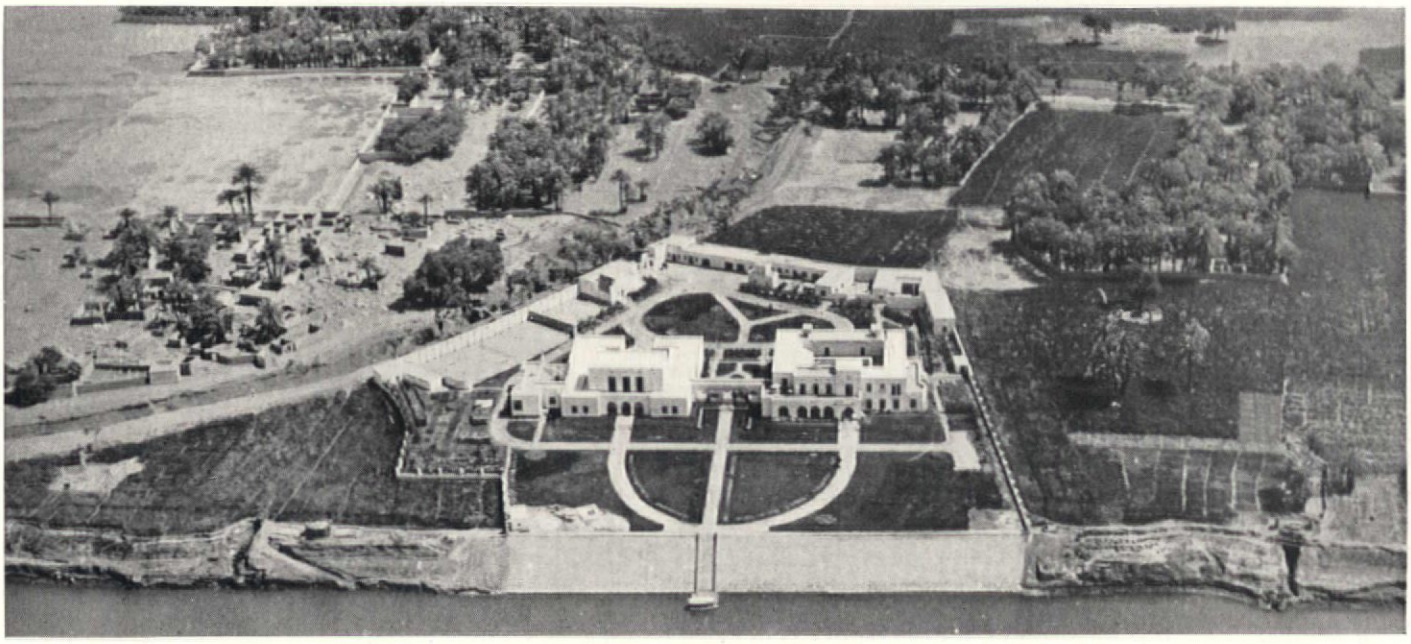
8. Paint on all steel sash and screen to be acidproof. This again is because of lactic acid conditions. Silver aluminum paint after previous coats of aluminum and graphite paint was very effective.

9. All materials entering into the construction of the building to be American products or manufacture.

Such a plant as this suggests that we are on the threshold of a new age in industrial architecture, where convenience, cleanliness and dignity will stifle the ugliness of the first hundred years of the Industrial Revolution.



The two sections show, first, how possible floor tile leakage may escape through weep holes in the drains, and second, how pipes are brought through floors by watertight raised curb sleeves



New Egyptian Headquarters of the Oriental Institute, at Luxor

UNEARTHING THE NEW

Orientalists find functionalism and modern forms in Persepolis and Palestine

BY JAMES HENRY BREASTED

In this day when most younger architects feel that creative genius alone is of value and only the seemingly "new" is worthy of attention, the ancient Near East is showing the designer-builder that he is but a part of a much longer tradition than he perhaps has ever dreamed of or is willing to admit. He will do well to imbibe the vitality and the validity of the ancient work, for if the architectural tree is to go on growing at the top, it must rise out of the vastly older trunk and the older roots below, which make possible further growth above. It is within the province of archæology to explore the soil from which those deeper roots have sprung.

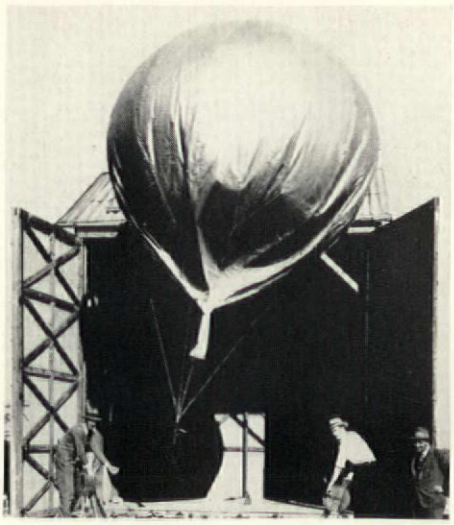
The history of architecture is not a series of unrelated revolutions but a slow continuous rhythmic development. With each new discovery comes added evidence that "modernity" was new twenty-five or more centuries ago. In the best of the so-called "modern" work we are witnessing a return to long-known basic principles. To the architect, archæology is becoming increasingly useful by its disclosures which not only show how the builders of the past solved great problems with limited materials but how similar are the old and new in form. The importance of these discoveries is the greater because these solutions are the *earliest* in the human career. When the earliest Egyptian pyramids arose, there was no hewn stone architecture anywhere on earth. The clerestory window in stone was unknown before the temple of the Sphinx. And little did the master masons of Chartres realize as they worked that the vaulted hall with side-aisles was used by Rameses III at Thebes. Archæology lends a true perspective to present efforts.

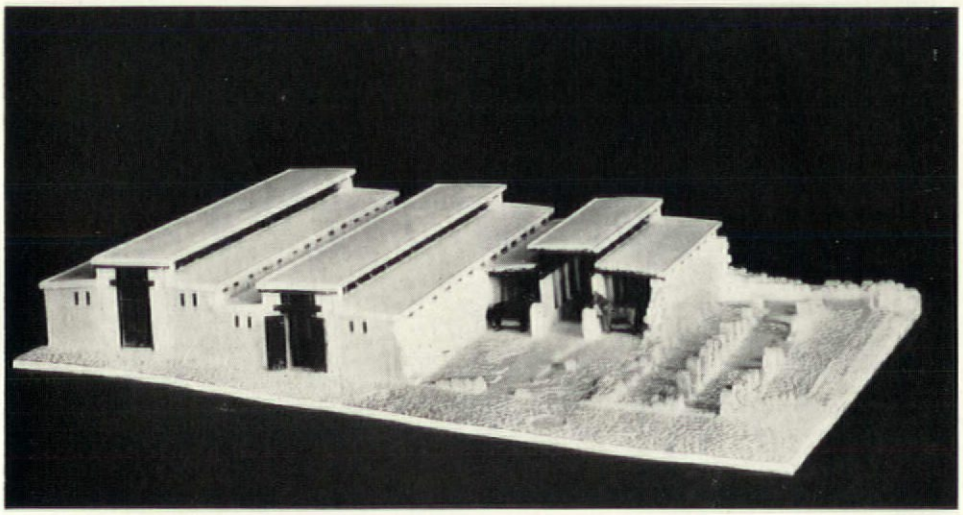
The evolutionary processes going on in architecture are discernible only by penetrating far back into Oriental history, that is, by systematic investigation on the scene of this process, of surviving evidence either above or below the ground. Since 1919, when the first expedition of the Oriental Institute of the University of Chicago carried on a year's survey to determine the best method and points of attack, a whole series of scientific staffs have been engaged at various strategic points. Their task has been to fill in the lost chapters of the human story, one in which architecture plays a continuous role.

In a small prehistoric mound near Persepolis, our Persian expedition uncovered the earliest known window in all architecture, a simple opening in the mud brick wall. A little over two miles distant stands the Palace Platform of Persepolis, imperial residence of Darius and Xerxes. Between these two extremes lies the whole evolution in ancient Persia as it finally expanded into the great Apadana Hall with its magnificent reliefs. In Egypt we are tracing a similar evolution from the wattle huts of the prehistoric hunter to the vast temple complex of Karnak, the greatest colonnaded hall of stone in the world.

Perhaps the most enlightening disclosures have been

O. Lind



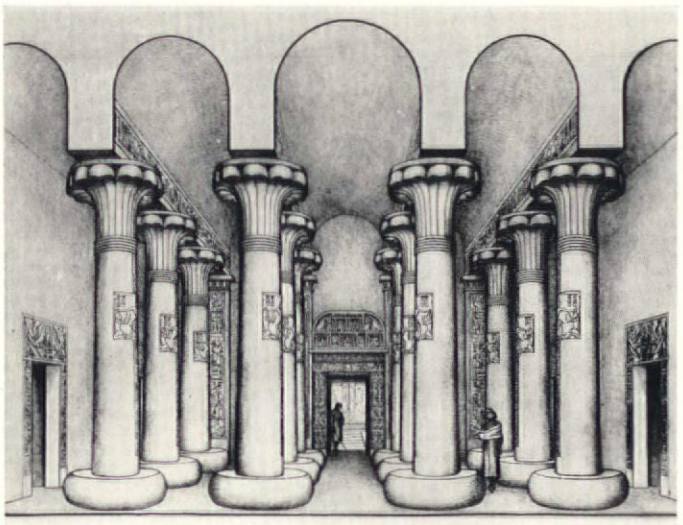


Modern methods disclose the ancient use of "modern" forms. The pictures of Megiddo, Palestine, on this page show excavations of the Chicago Oriental Institute, which through expeditions at strategic points of ancient Oriental civilization and a scientific clearing house at home, is helping to recover the lost chapters in the early human career. Above: Balloon for making air mozaic maps of cleared areas as the culture strata of the city-mound are peeled off level by level.

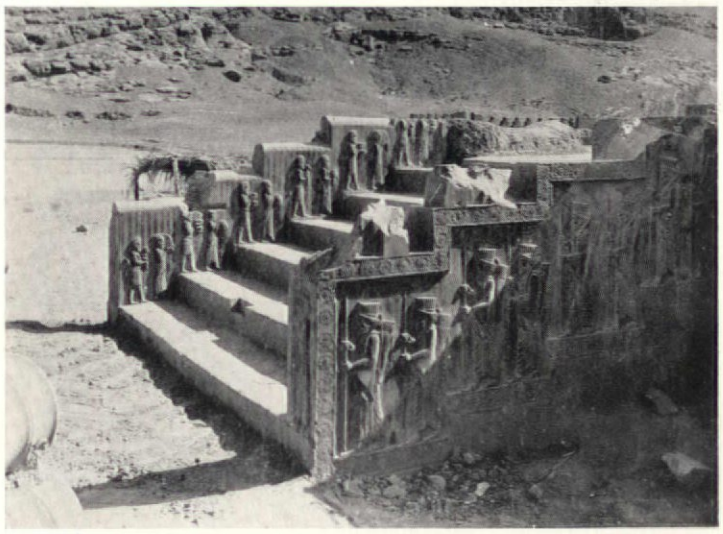
Top left: Stables of King Solomon after clearance. Middle: Reconstruction of Solomon's stables discloses that the ancient building meets modern British cavalry regulations. Lowest left: Air view of Megiddo city-mound, with expedition staff quarters in the foreground. This city guards the pass through the Carmel ridge from the Mediterranean to the plain of Esdraelon. It is the strategic point for an invasion of Western Asia and equally important for an attack on Egypt. From Thutmose III's conquest to Allenby's defeat of the Turks, it has been a battlefield between Asia and Africa. Hence, buried within this mound are the records of this age-long conflict, as told in the main by architecture and ceramics

the way the ancient architects solved their problems of providing space, shelter and esthetic effect appropriate to the purposes of their buildings. Planning and constructing the palace platform and royal buildings at Persepolis involved the same coordinated organization as the Empire State Building; nor is the spirit of the massing very far removed. Modern functionalism is an admission by contemporary architects of the validity and soundness of the early forms, and of the straightforward thinking which produced them. The modernist is following in the footsteps of the ancients and is, in reality, going back around the narrow stylistic ideals to the very core of the architectural tradition. It is here that the architect today may benefit from the new discoveries. By systematic investigation, archæology is clarifying the present in the light of what has gone before.

The Theban palaces of Rameses III at the Temple of Medinet Habu, Thebes. Directly below: The palace site after excavation. Middle: Actual restoration of the second palace. Bottom: Dr. Hölscher's architectural reconstruction of first palace showing mud-brick tunnel vaulted throne room — the fundamental roof type in later basilica and cathedral architecture



Reed N. Haythorne



The Institute's Persian Expedition at Persepolis. Top: Air view of Persepolis Palace Platform. Center: Facade of harem palace of Darius and Xerxes restored as museum and expedition headquarters. Lowest view: Small stairway at Persepolis which despite 2,500 years is modern in design

JAMES HENRY BREASTED

WHATEVER knowledge Americans under 35 may have of Hammurabi, Rameses, and other ancient bigwigs, most likely was picked up in high school from the study of one book — "Ancient Times — A History of the Early World," known to schoolboys simply as "Breasted."

Director of the Oriental Institute, the author of this text book best-seller is 69-year-old James H. Breasted. Forty years he has spent prying loose social, cultural and religious secrets from men dead for centuries, giving to laymen accurate pictures of life among the Egyptians, among the Assyrians, among the Babylonians. It takes 79 lines in *Who's Who*, only seventeen less than high scoring Nicholas Murray Butler, to record the list of his past performances. One fact it does not recall: it was Dr. Breasted whom Howard Carter sent for to make sense out of the hieroglyphics on the sealed doorways of Tut-ankh-Amen's tomb.

Regarded by many as the world's leading archæologist, Dr. Breasted runs to neither of the extremes of his profession. His trips to the Orient do not provide field days for the news reel men or the Sunday magazines; nor is he an ossifying academician. He is simply a genial active man who happens to have devoted his life to study of the ancient world.

For years a professor at Chicago University he has relinquished teaching duties to give all his time to research and the ever-increasing administrative burden of the Oriental Institute. Like a schoolboy exhibiting his collection of beetles, Dr. Breasted delights in showing off his efficient laboratory for the study of the early human career. He speaks of Egyptian figures as old friends.

When he grew out of his Middle Western boyhood, he might have become a pharmacist or a minister, for he took degrees in both. His interest in the ancient Orient probably goes back to a first acquaintance in his father's small library with Layard's "Nineveh and Babylon," and the then mysterious and human-headed bulls on the cover.

In 1891, while at Yale as a graduate student, what had been an interest became his life. Crossing to Germany a year later, he worked at Berlin, under Professor Erman. He was commissioned (1896) by the German Royal Academy to copy inscriptions in Berlin, Leipzig, Munich and Göttingen. Ten years later he published five volumes of "Ancient Records of Egypt." Based directly on this, his "History of Egypt" soon followed. Both had meant years of searching about the museums of Europe and trips to Nubia as far as the Fourth Cataract. On these early Nile journeys his limited equipment included:

Transportation — one dahabeeyah, one donkey hired by the day, browsing nearby.

Family resources — one wife, newly acquired, also browsing nearby.

Supplies — one pocket note-book, one tiny hand camera, one basket lunch and two bottles of water.

At Chicago University periods of teaching and writing alternated with visits to the Nile. Gradually it dawned on him that the history of man was a vastly longer evolution than had been generally believed and that the scene of the early stages in the development lay at the Eastern end of the Mediterranean. For the first time since the Crusades, at the close of the World War, the Near East found itself under Western domination. Dr. Breasted saw the opportunity and wrote to the man to whom many another scientist and humanitarian has turned for aid — John D. Rockefeller, Jr. Weeks later from 26 Broadway came a promise of $10,000 a year for five years. Such was the founding of the Oriental Institute. He immediately organized an expedition to make a general archæological survey of the Near East.

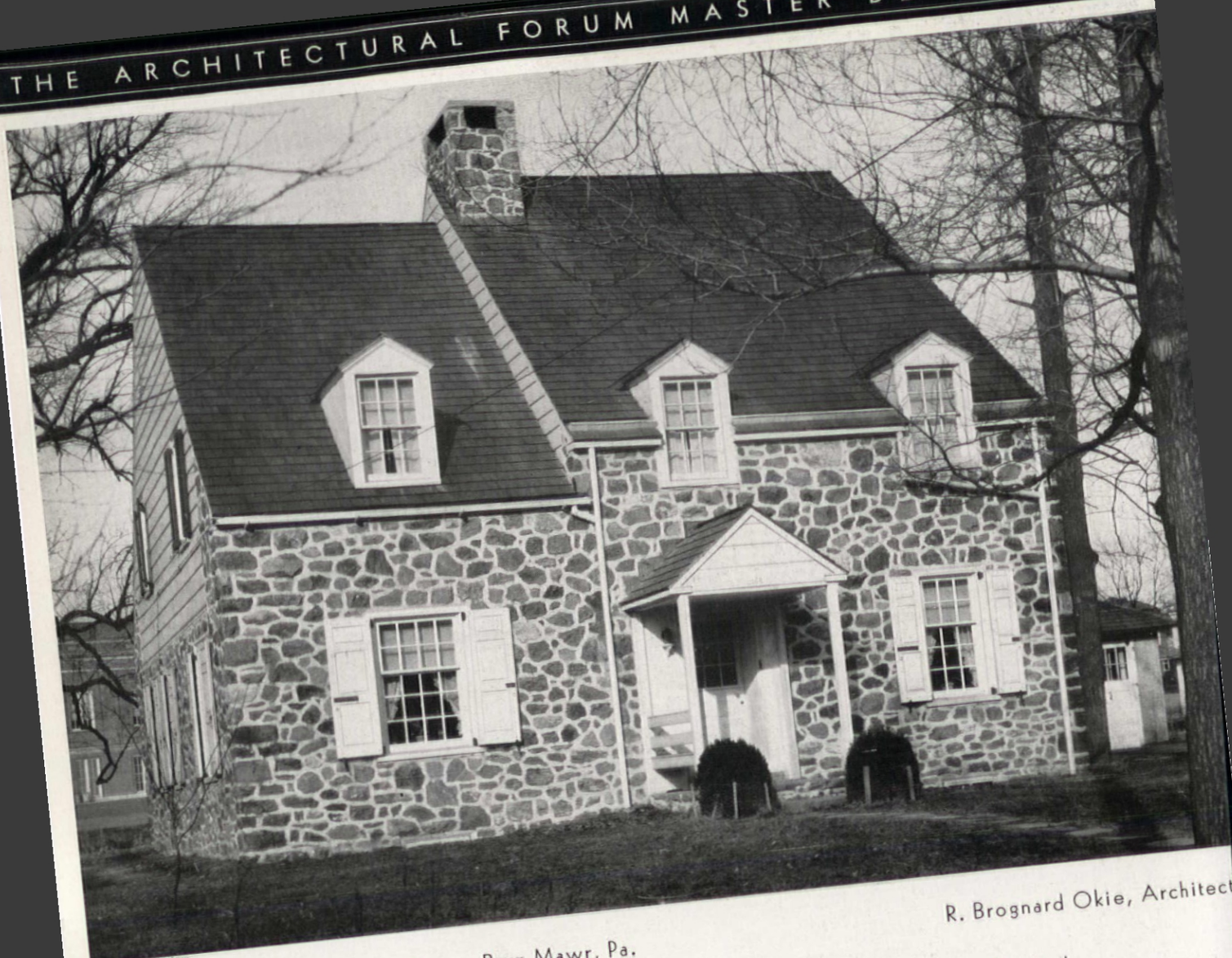
An exciting year in the field, where he was forced by hostile tribesmen to take part in an anti-British plot, took him up the Euphrates to discover the Oriental forerunners of Byzantine painting at Dûra. He returned at General Allenby's request via the British Foreign Office.

From his desk he controls at the moment seven expeditions, which are like frontier detachments operating from a single base. Results in the form of discoveries and publications have well justified Mr. Rockefeller's munificent gifts and the grants of the General Education Board. As a pioneer in this country in Oriental investigation he has done more than any one man to focus both lay and academic thought on the story of human development.

E ARCHITECTURAL FORUM MASTER DETAIL SERIES •

THE PENNSYLVANIA FARMHOUSE

ARCHITECTURAL FORUM MASTER DETAIL SERIES •

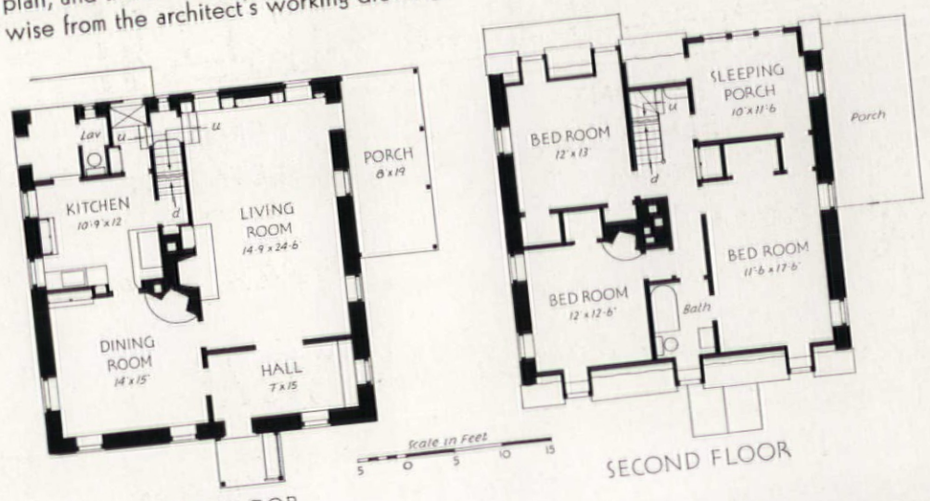


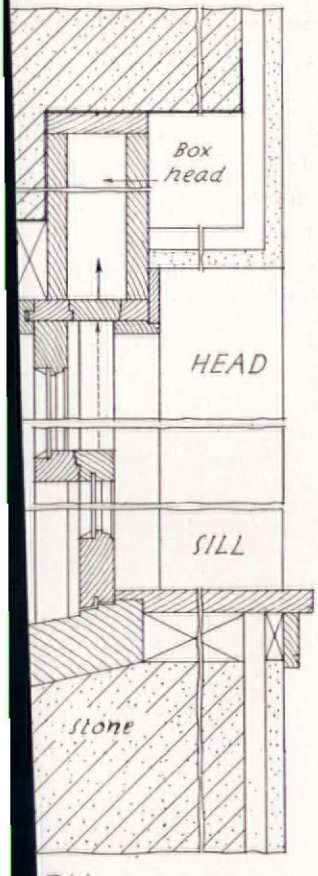
All photos, Wallace

House of Miss Mary C. Gyger, Bryn Mawr, Pa.

R. Brognard Okie, Architect

The ledge stone farmhouse with its white wood trim, sturdy lines and simple detail has become a recognized style of domestic architecture. It is indigenous to Pennsylvania but is equally appropriate in any corresponding terrain where stone is available. . . . The plans shown below were taken from the architect's original working drawings and do not include the changes that were made in fenestration, etc. For example, one front window was used in the dining room instead of the two shown on the plan, and the entrance seat was shifted. The details here reproduced were taken likewise from the architect's working drawings





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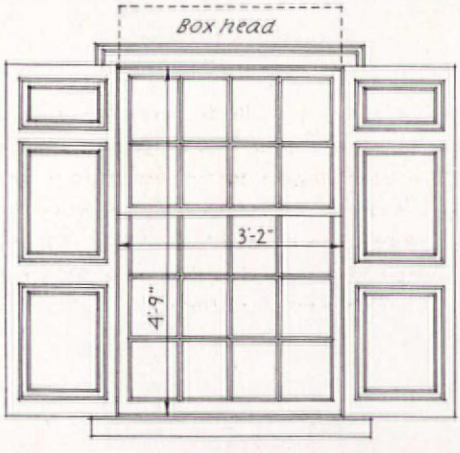
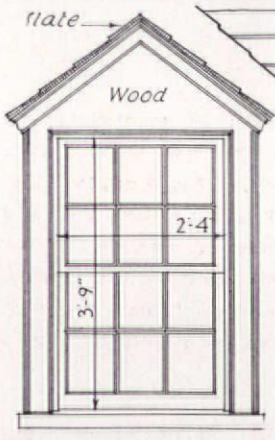


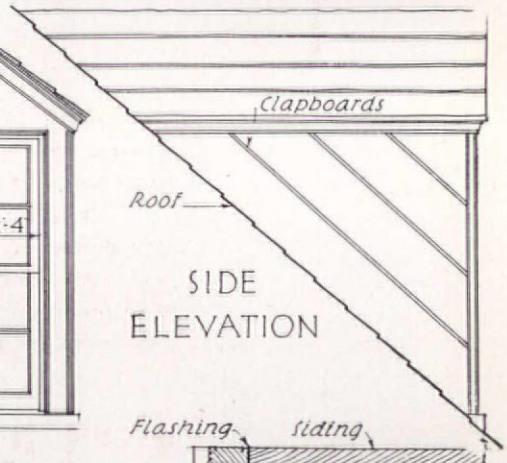
FRONT ELEVATION
Scale 3/8" = 1'-0"

TYPICAL WINDOW

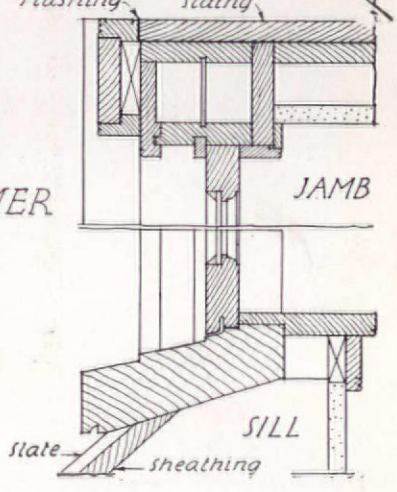


FRONT ELEVATION
Scale 3/8" = 1'-0"

TYPICAL DORMER

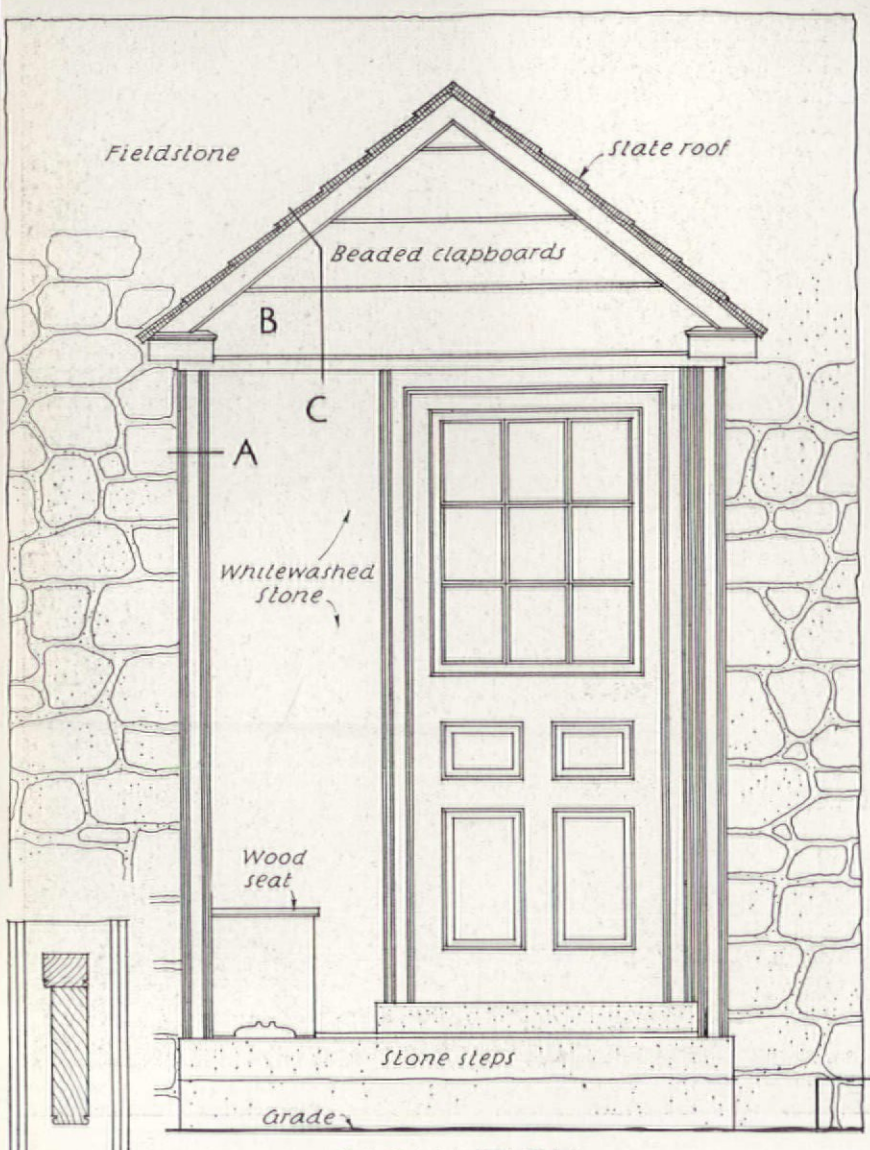


SIDE ELEVATION

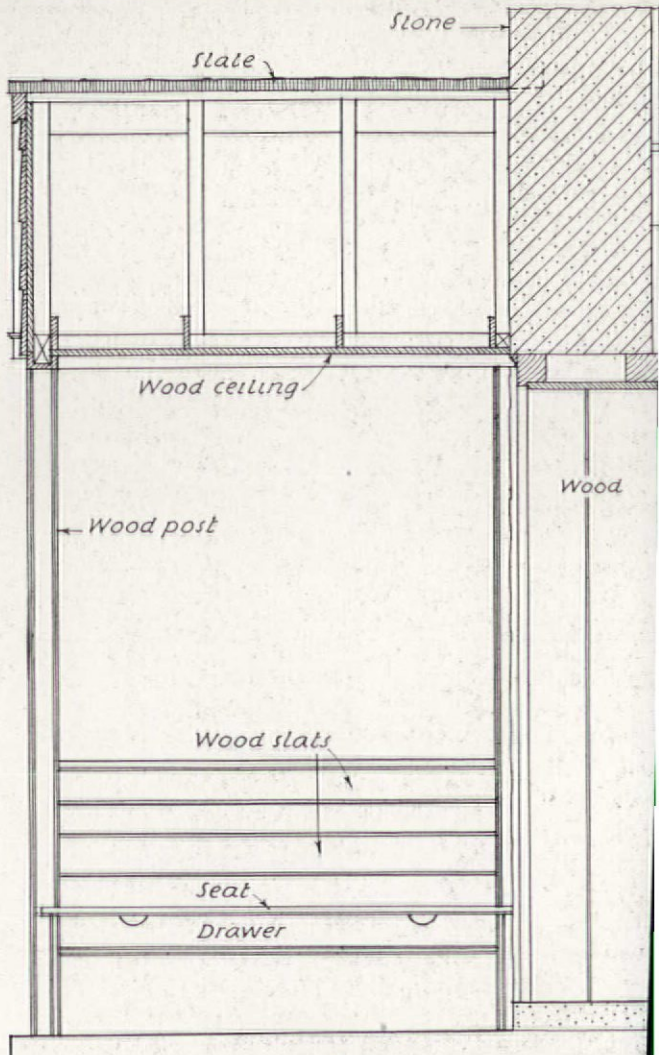


SECTION
Scale 1 1/2" = 1'-0"

Exterior Details



ELEVATION

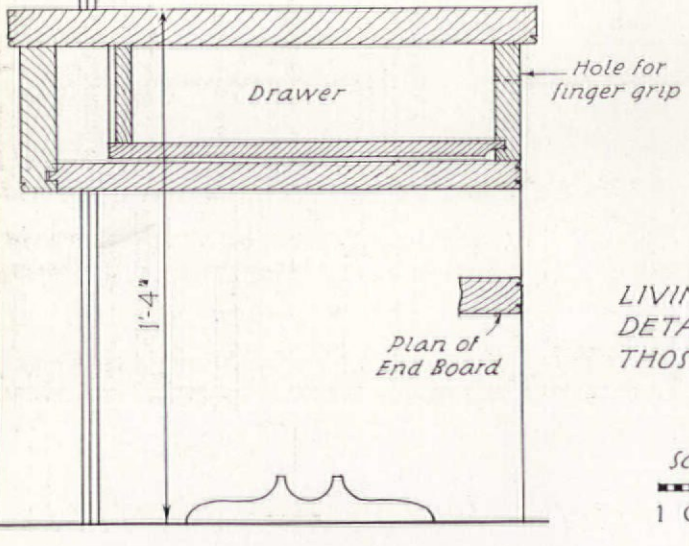


SECTION

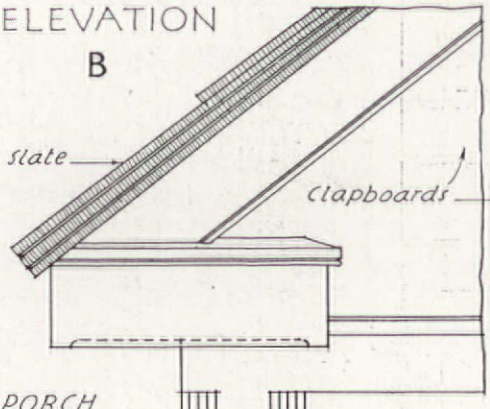
Scale 1 0 5

Details of Entrance Porch

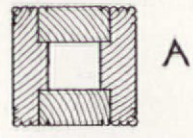
SECTION THRU SEAT



ELEVATION B



LIVING ROOM PORCH DETAILS SIMILAR TO THOSE SHOWN HERE



Scale for details

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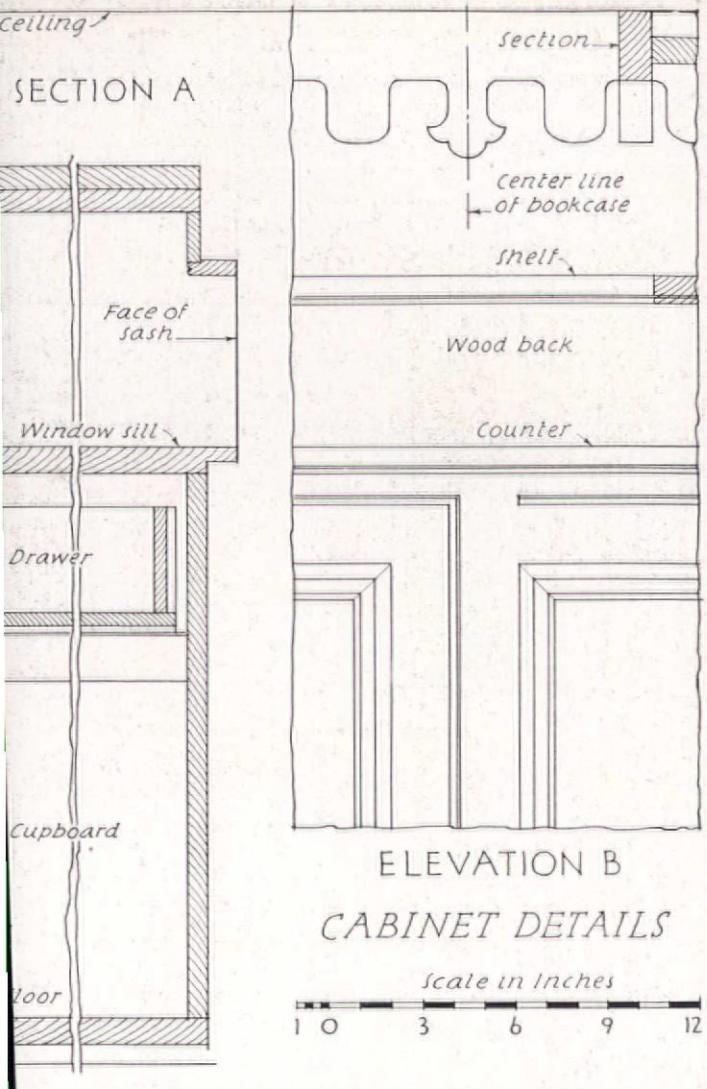
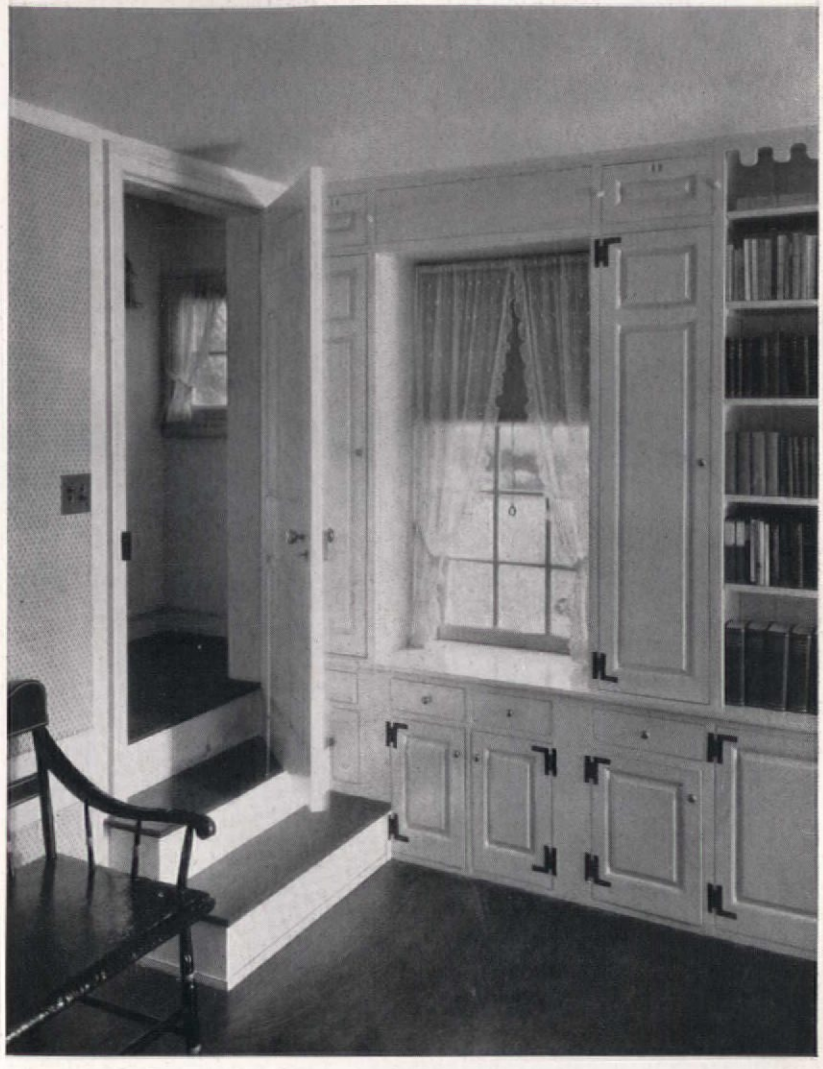
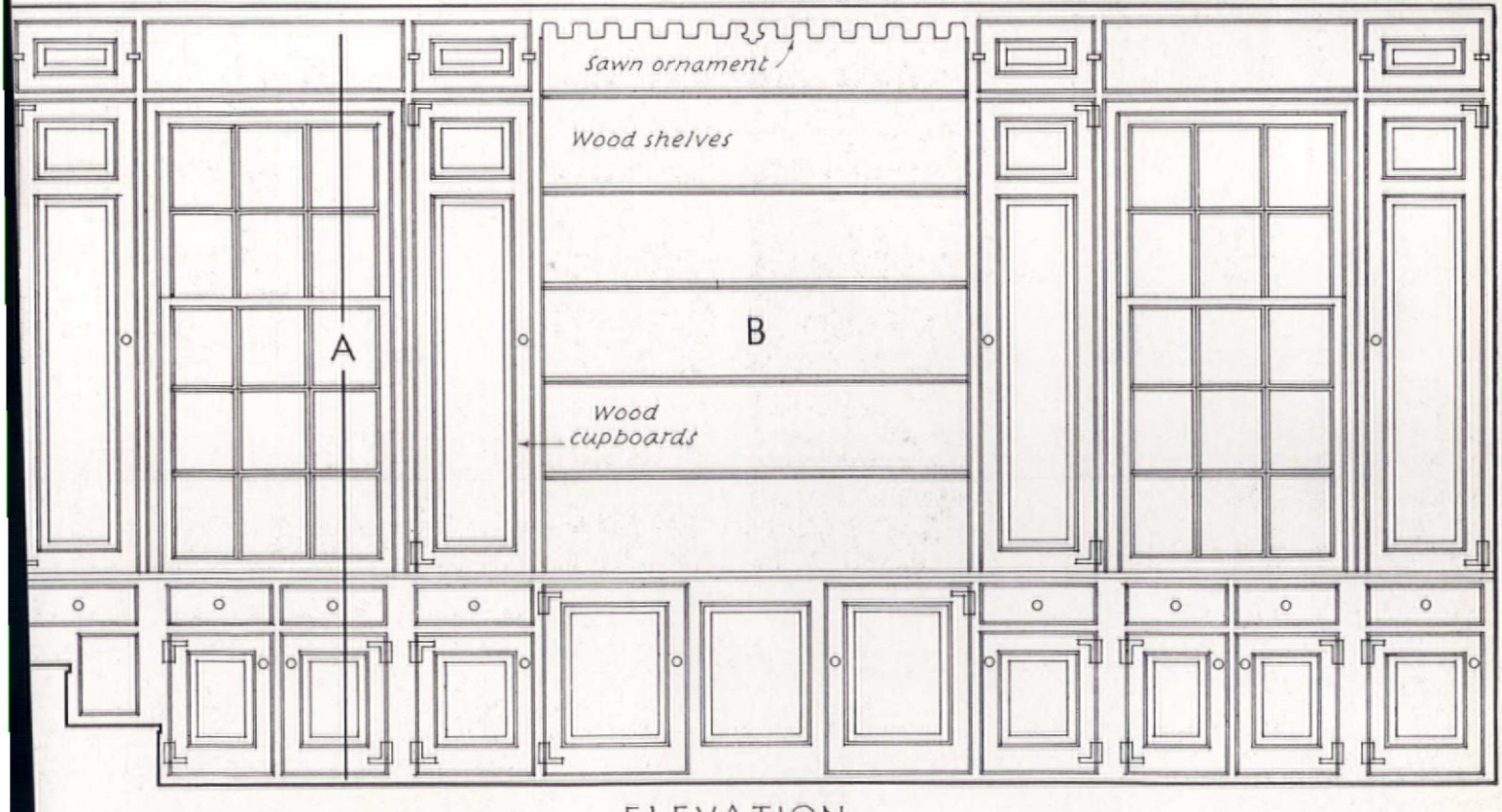
SECT





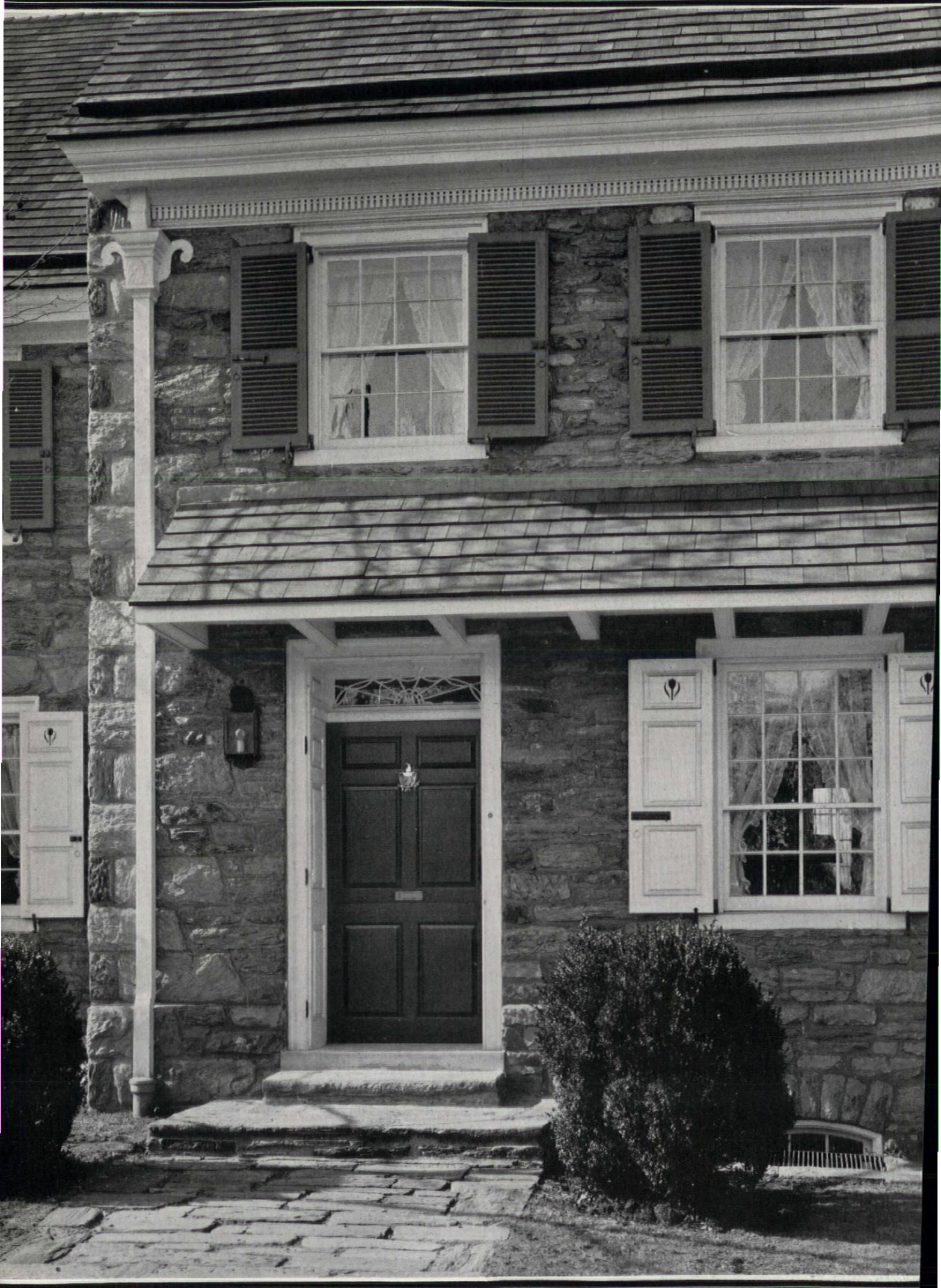


ELEVATION

Scale in Feet

0 1 2 3 4 5

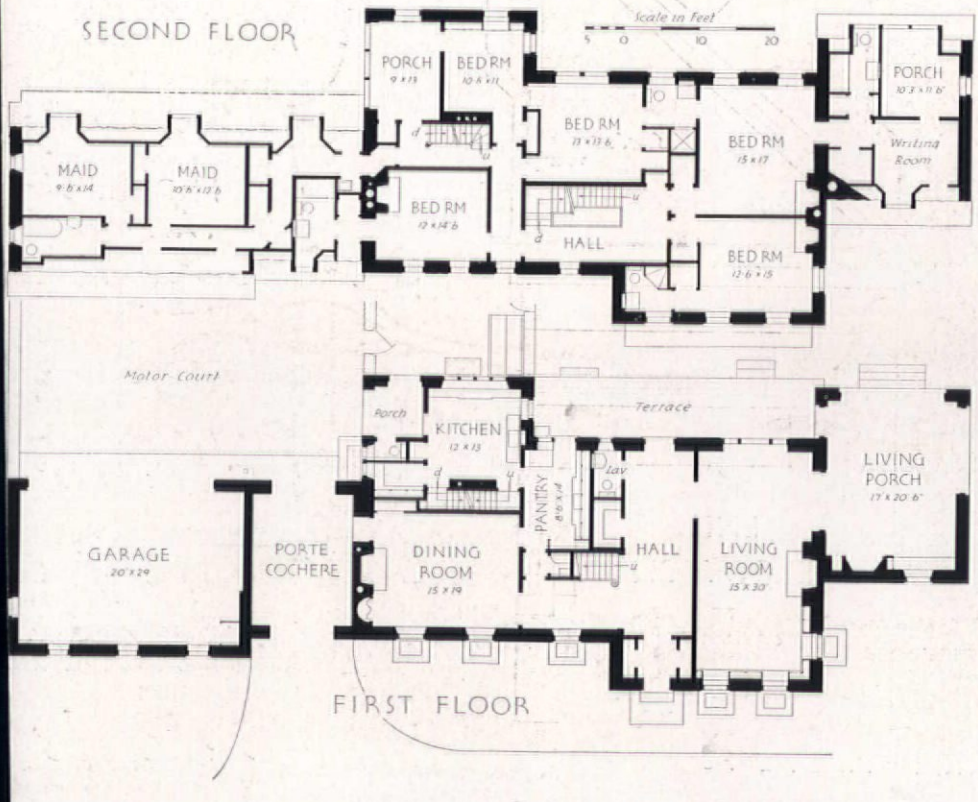
Typical Interior Details



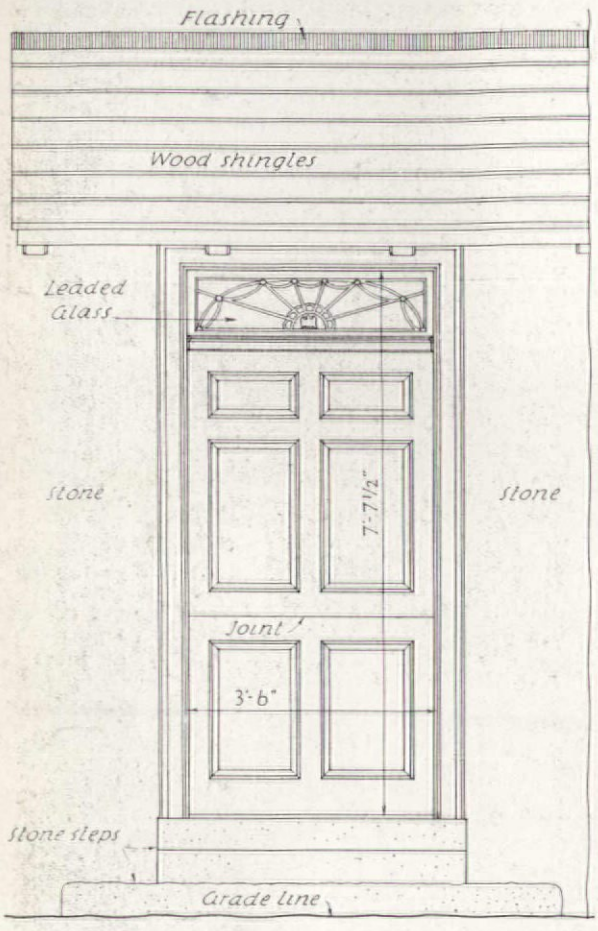
Wallace

House of Mrs. John F. Keator, Germantown, Pa.

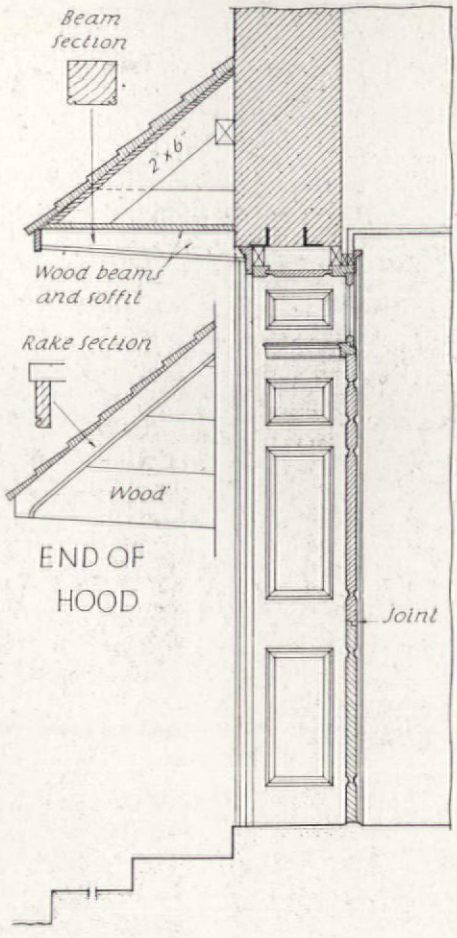
G. Edwin Brumbaugh, Architect



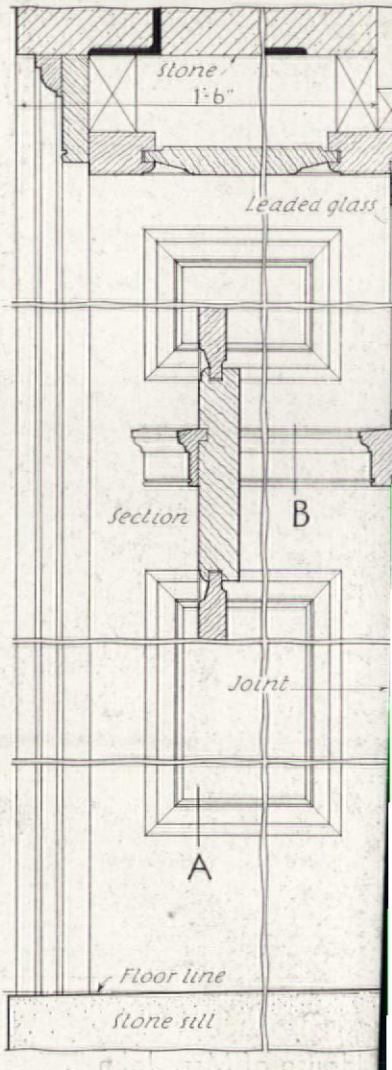
Much of the character of the Pennsylvania farmhouse is due to the informality of additional wings which break the roof line of the various portions of the house. New houses use this same feature with good effect as it permits great flexibility in planning as well as adding attractiveness. The familiar Germantown hood is used in this house to emphasize the main living portion



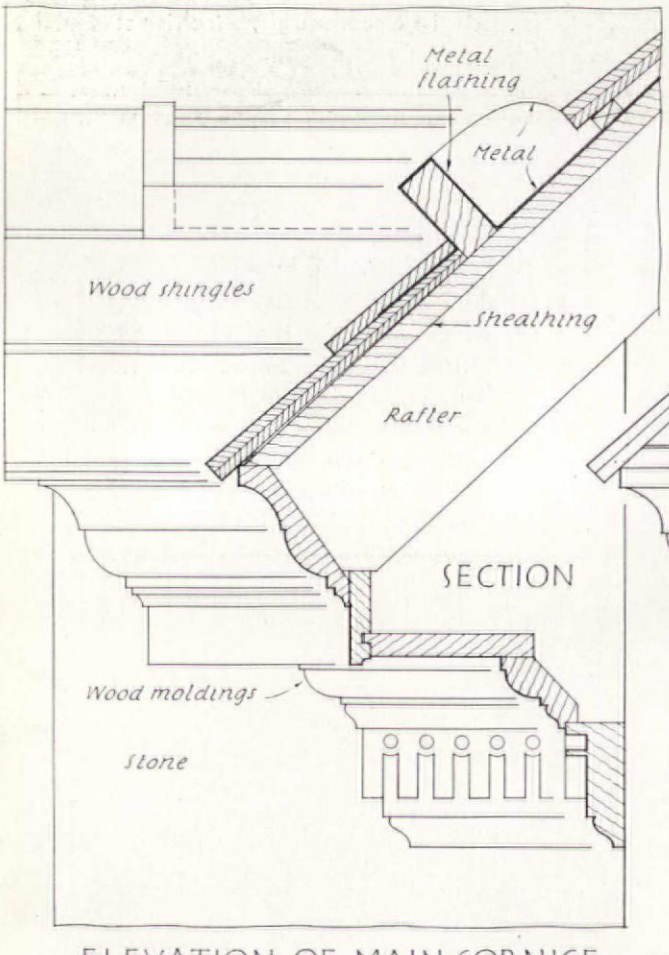
DOORWAY ELEVATION Scale 3/8"=1'-0"

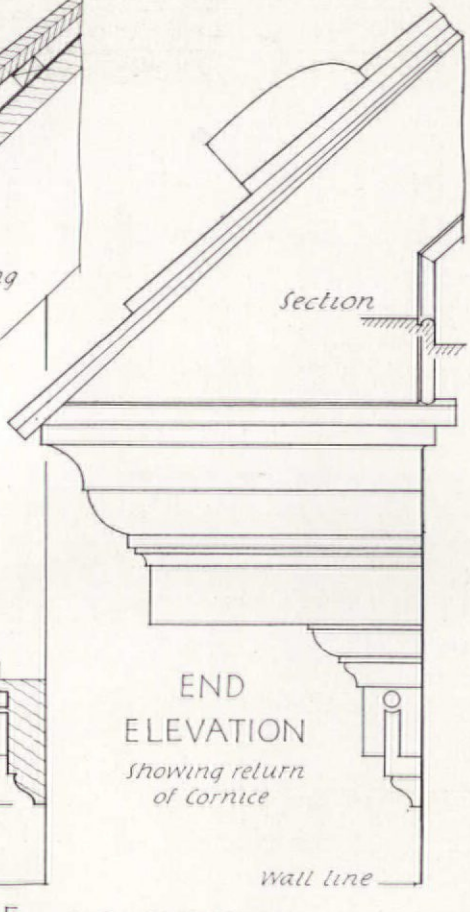


SECTION

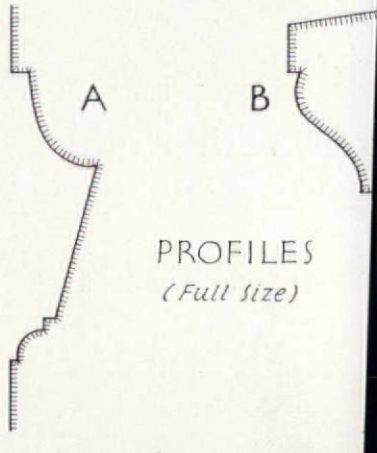


VERTICAL SECTION OF DOORWAY
Scale 1½"=1'-0"





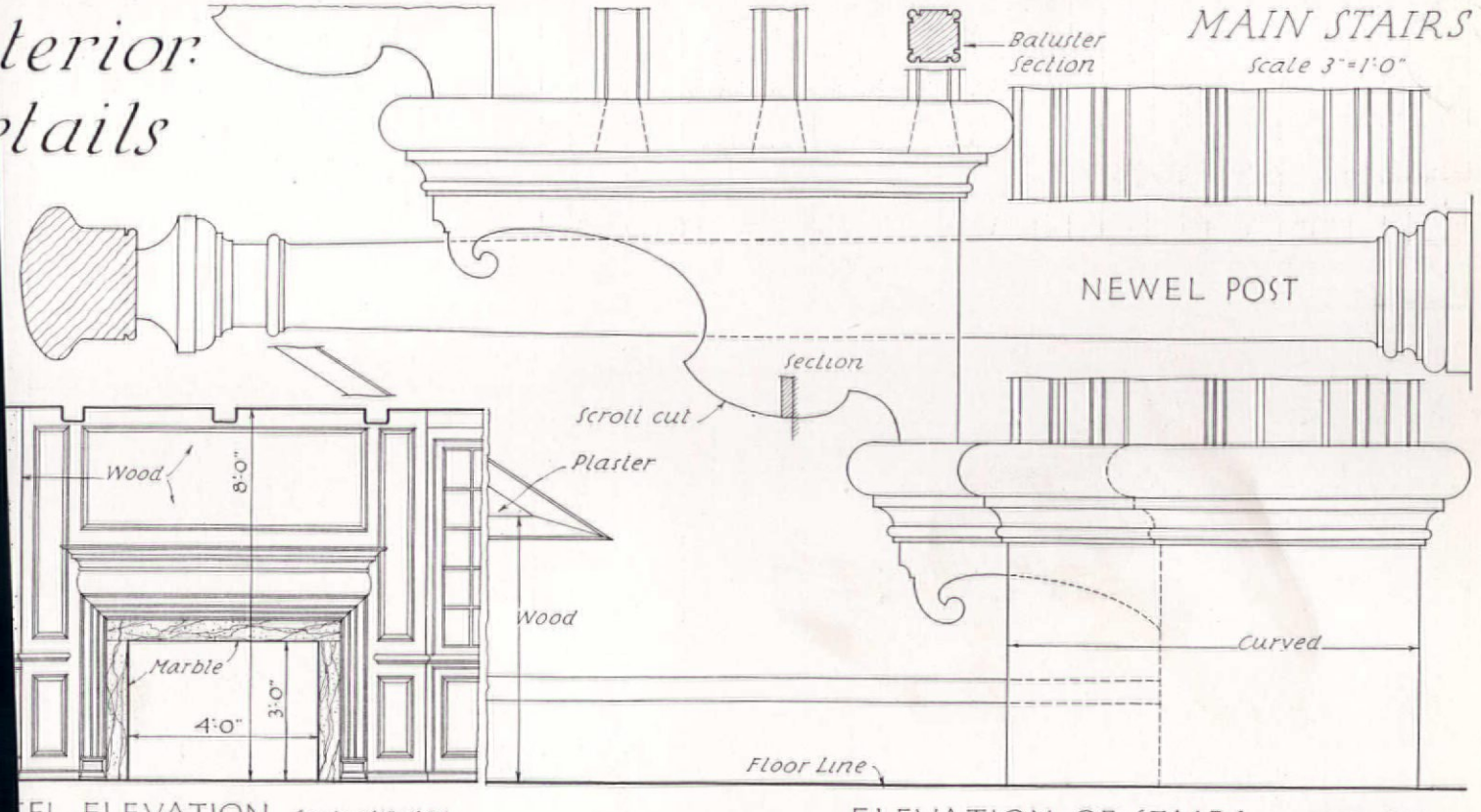
ELEVATION OF MAIN CORNICE Scale 1½"=1'-0"



PROFILES
(Full Size)

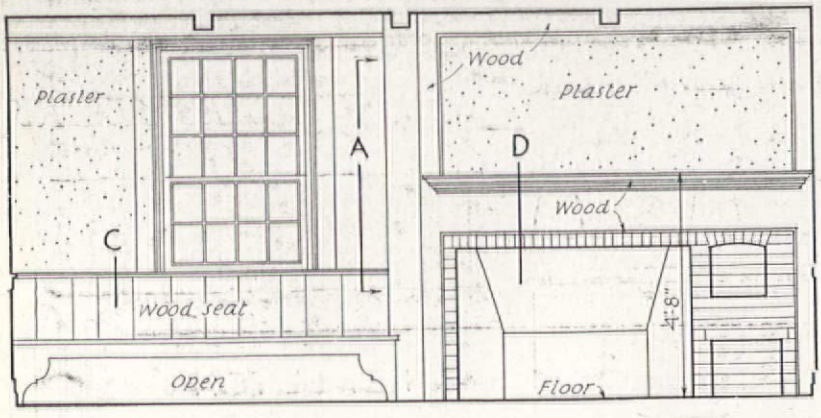
Entrance Doorway a Main Corn Details

terior
tails

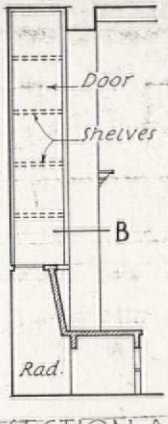


EL ELEVATION Scale 1/4"=1'0"

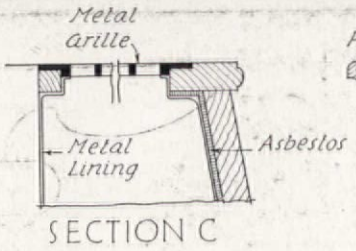
ELEVATION OF STAIRS Scale 3"=1'0"



ELEVATION

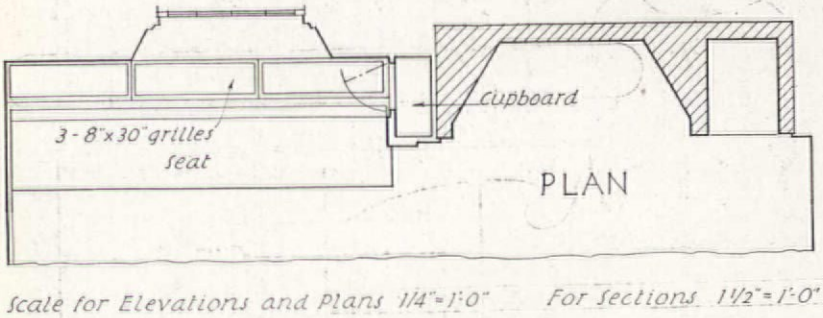


SECTION A

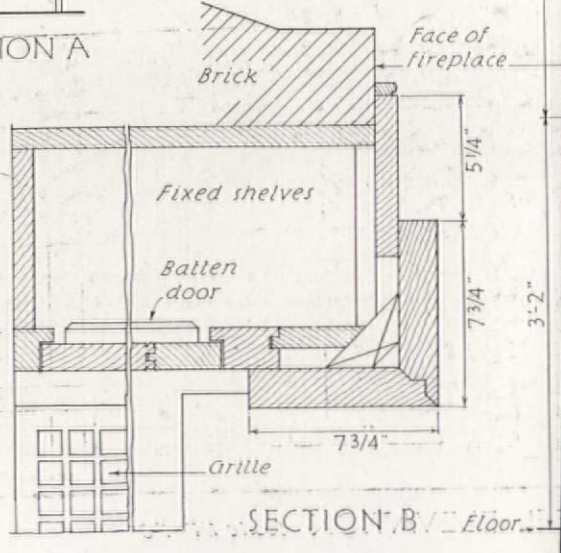


SECTION C

DETAIL SECTIONS



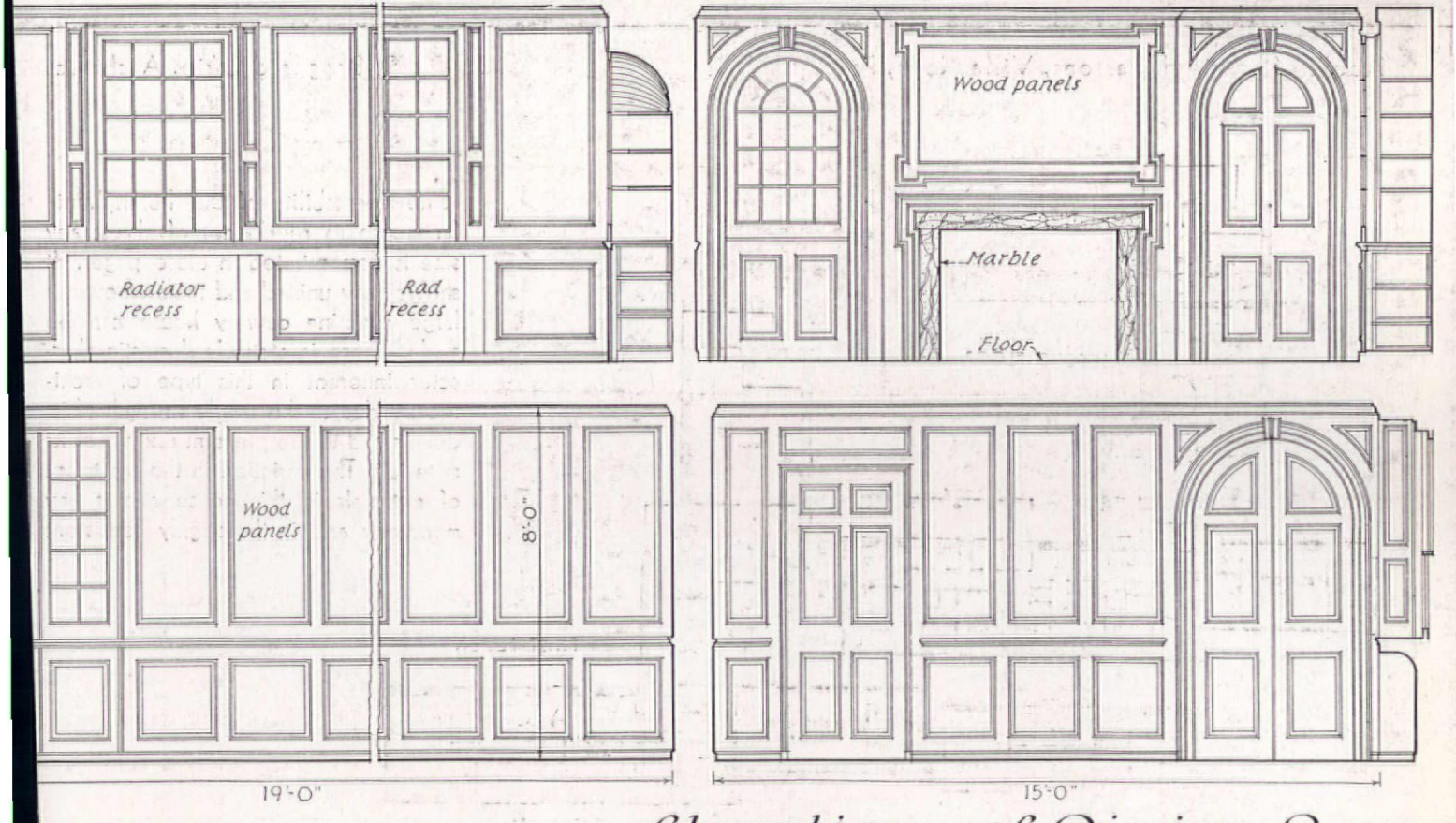
PLAN



SECTION B

Scale for Elevations and Plans 1/4"=1'-0" For Sections 1 1/2"=1'-0"

Living Room Mantel Detail

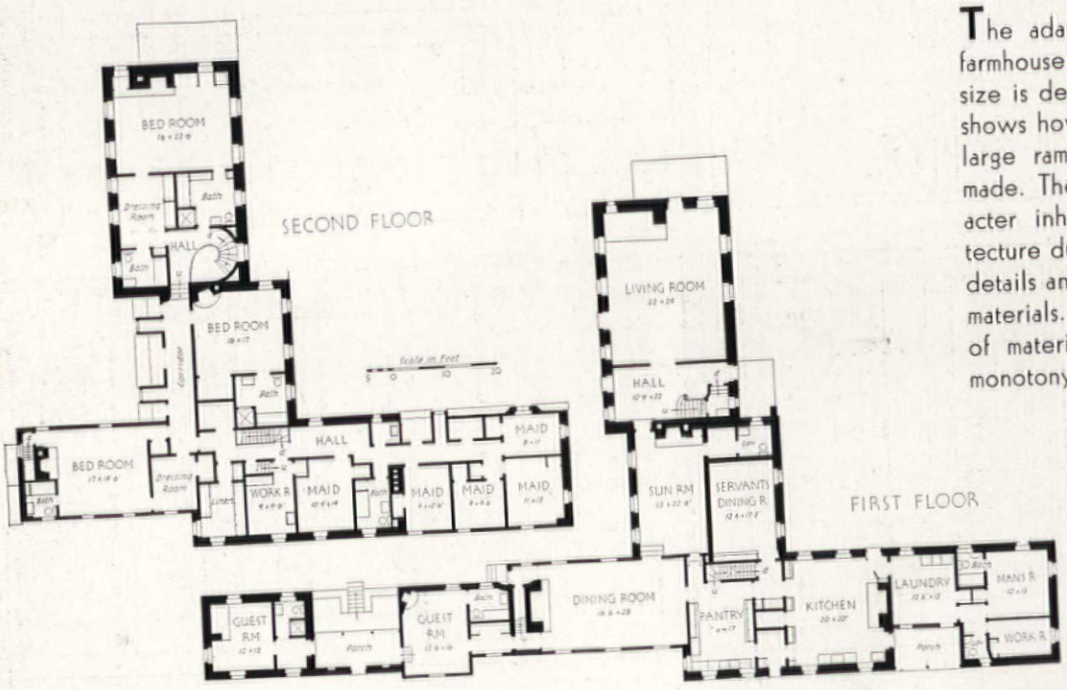


all Elevations 1/4"=1'-0"

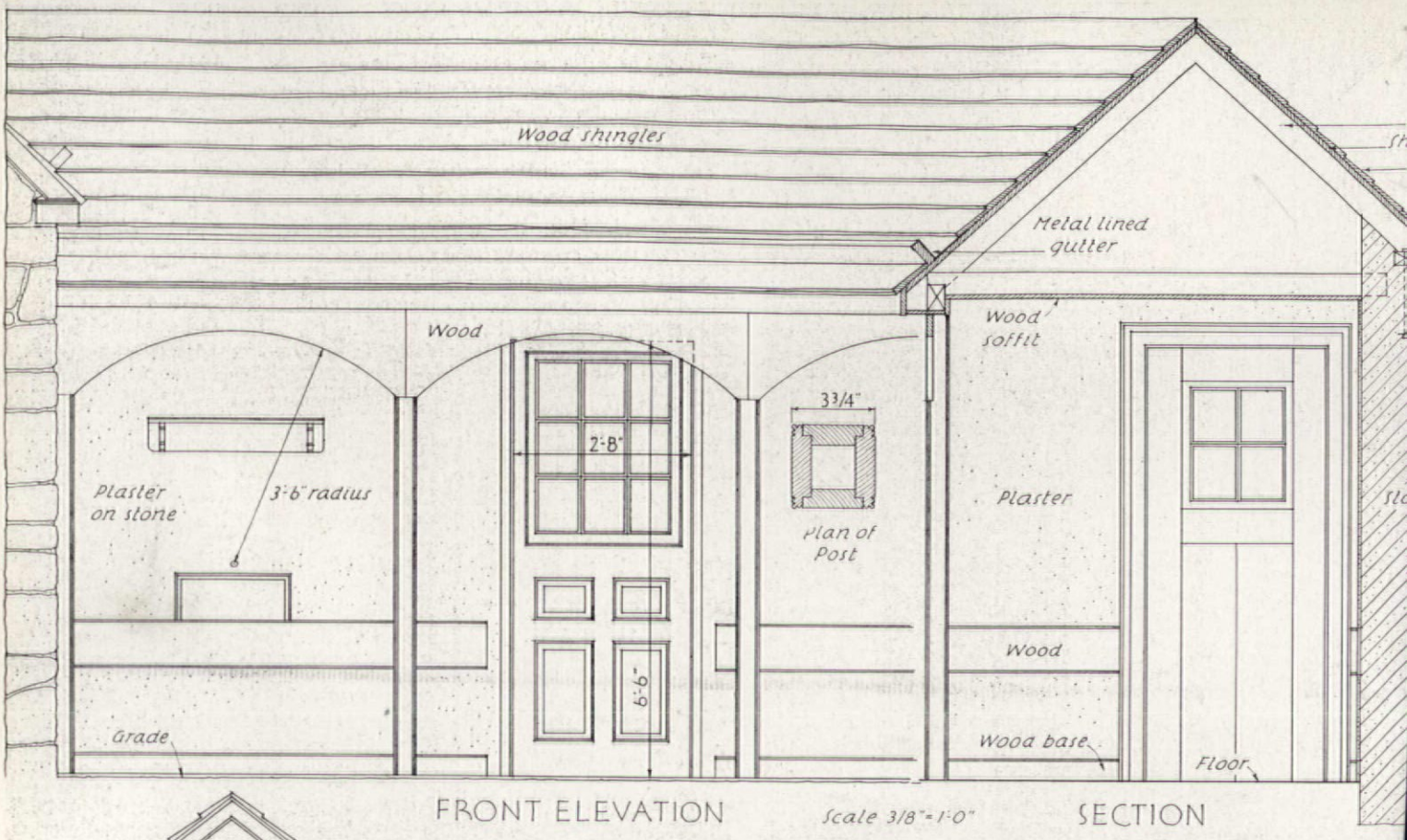
Elevations of Dining Room

House of Lewis H. Parsons, Villa Nova, Pa.

R. Brognard Okie, Architect

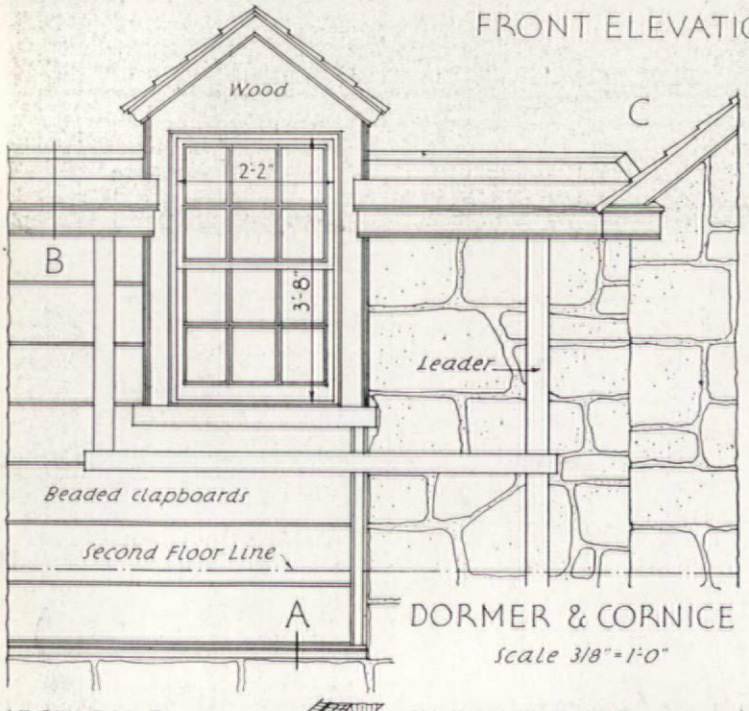


The adaptability of the Pennsylvania farmhouse to residences of almost any size is demonstrated in these pages. It shows how unified and intimate even a large rambling country house can be made. There is a sturdy domestic character inherent in this type of architecture due to the simple strength of its details and to the pleasant texture of its materials. The variation in the treatment of materials in this house avoids any monotony and is thoroughly consistent

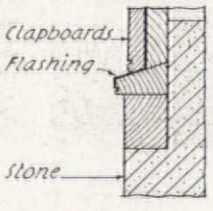


FRONT ELEVATION Scale 3/8"=1'-0" SECTION

COVERED PASS

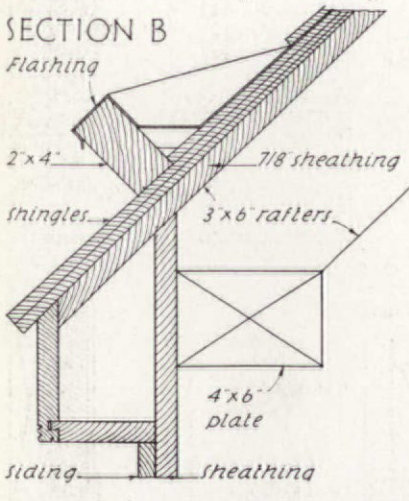


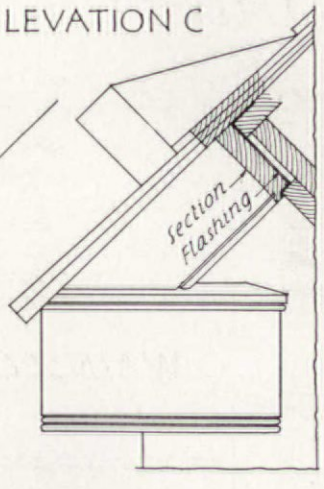
DORMER & CORNICE
Scale 3/8"=1'-0"

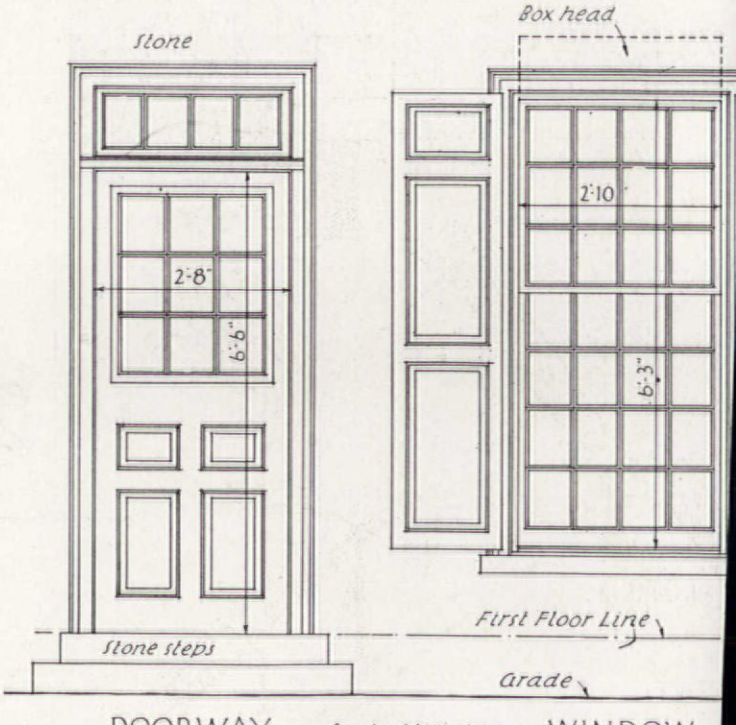


SECTION A

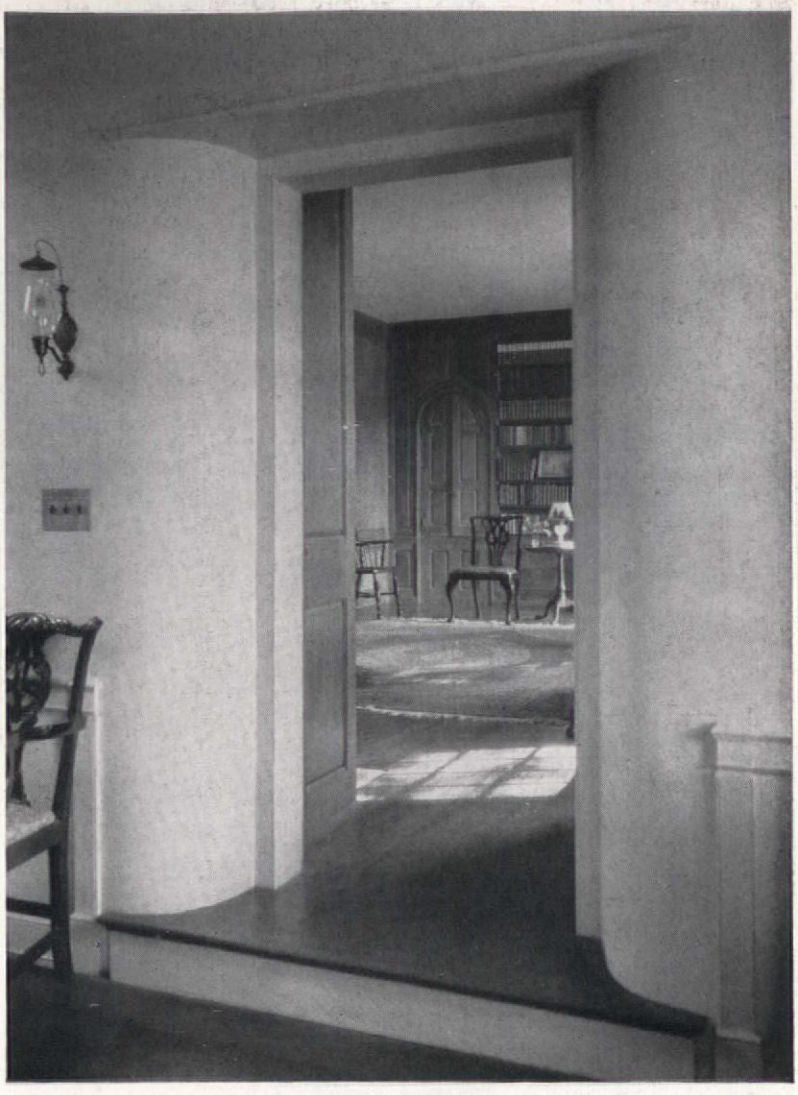
Typical Exterior Deta

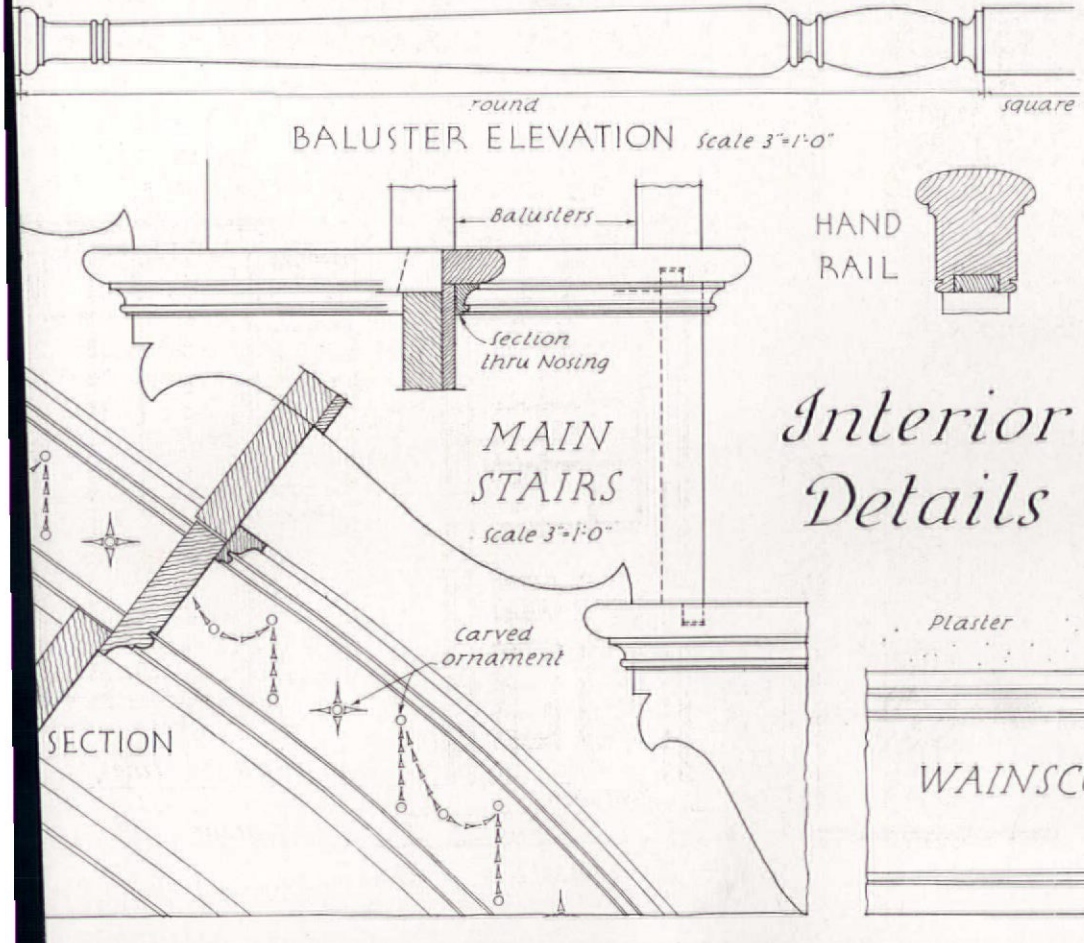






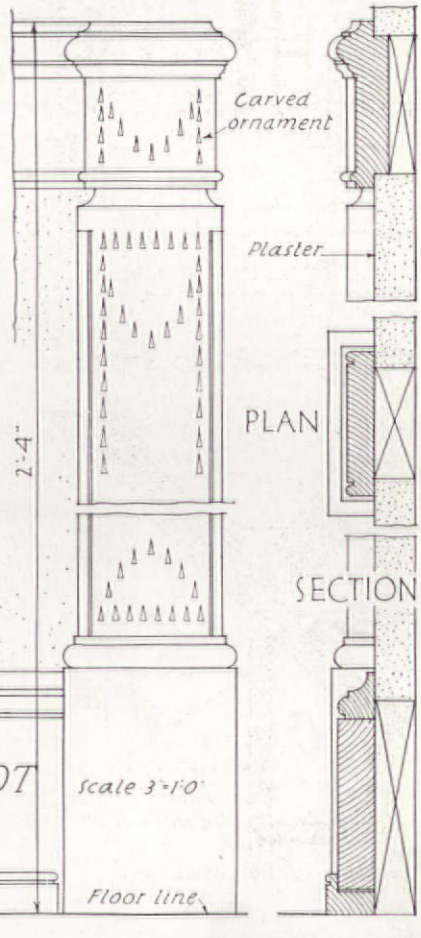
DOORWAY Scale 3/8"=1'-0" WINDOW





HAND RAIL

Interior Details



THE

ARCHITECTURAL

FORUM

▼

BUILDING MONEY

A monthly section devoted to reporting the news and activities of building finance, real estate, management and construction

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JOHN CUSHMAN FISTERE
Editor

MODERNIZATION TODAY, INSURED MORTGAG

are the two points in Washington's two-point plan for building. Walker hopes $1,500,000,0 likes his scheme better than the Federal Mortgage Bank.

MIDWAY in its attack upon the forces of the Depression, the Administration halted to survey its gains. Along the unemployment front, most stubborn of all its foes, it found at the end of 1933 eleven and a half million men still idle, of which six million were workers in heavy industries. Of the six million, three million were accounted for in construction alone.

Like any good general President Roosevelt ordered his battalion commanders to shift their strength to bolster this weakest of all salients. From his chief of emergency forces, Frank Comerford Walker, he wanted to know why this particular foe had refused to fall back, particularly since he had sent his PWA forces into action against construction idleness at the outset of the campaign. (For a report of why PWA failed to accomplish its major objective, see THE ARCHITECTURAL FORUM, April, 1934, page 249.)

Few men in Washington are held in greater respect than Frank Walker, Montana lawyer. New to national politics, and unknown in the East when he was named treasurer of the Democratic National Committee in 1932, he has sired many an important administration measure. As executive secretary of the capital's most important body, the National Executive Council, he has welded together the activities of the horde of Roosevelt's special bodies — the NRA, the PWA, the AAA, and so on. A quiet worker, he seldom attracts the attention of Washington newsmen, is better able therefore to perform his difficult job.

With the Administration determined to help out the building industry, Walker drafted from the Cabinet the six members most vitally interested in building revival — Ickes, Perkins, Wallace, Roper, Cummings, and Morgenthau as the nucleus of an advisory committee. From CWA he borrowed director Harry Hopkins, from NRA, its second in command, W. Averill Harriman, and from the Federal Home Loan Bank Board, chairman John H. Fahey.

They knew, vaguely, what they wanted: a program for stimulating modernization; a plan for reestablishing on a sound basis the mortgage market. Work was speedily parceled out. To Winfield W. Riefler (of whom more later) went the toughest assignment to study the whole home financing structure, find out what was wrong with it, what would make it right. To Harriman fell the task of lining up industry. To Morgenthau's new assistant secretary Marriner S. Eccles the study of Treasury participation. From General Motors Holding Corporation President Albert L. Deane was borrowed for six months to discover if he could apply automobile installment financing to housing and modernization. From the Durable Goods Committee of the NRA they drafted Lewis H. Brown of Johns-Manville, whose modernization campaign ("$1,000,000 to Lend") has been a bright spot in dull times.

Underwood & Underwood

Winfield Riefler

BASIC PLAN

Home Modernization: Insuring private lenders against loss up to 10–20 per cent of their total loans, U. S. will lend its strength to a national modernization drive. Financing: wholly unsecured loans up to $2,000, bearing 5 per cent interest, amortized over five-year (or less) period. Drives conducted, work done by combination paid and unpaid help through local architect-engineer-financial boards under Washington direction.

New Home Construction: U.S. may insure through national mutual mortgage insurance corporation mortgage loans of one type: 15 to 20 year amortized mortgages, bearing 5 per cent interest up to 80 per cent of house and lot value on 1- to 4-family houses. May charter Federal Mortgage Companies under Federal Home Loan Bank Board to issue U. S. guaranteed mortgage bonds on mortgages of prescribed type.

These and a dozen others were given sections of the program to develop.

Followed immediately a parade of consultants to Washington, most of them novitiates in government activities — manufacturers, moneymen, architects, engineers who could contribute more than generalities.

Around the big table in Secretary Roper's conference rooms * they gathered, talked, voted aye and no on aspects of the program.

By the time the President had returned from his fishing trip the program was in its major details complete.

Modernization. Campaigns for modernizing are not new. At the last count, 112 cities had worked themselves up over them. A frequent result has been much civic pride aroused, much publicity, little actual construction. The reason in almost all cases has been unwillingness of lending agencies to make loans. As expressed by a Clevelan banker, "Is there any reason to suppos that if a man is having difficulty meetin interest payments on a $2,000 mortgag he will be any better able to meet them on $2,500 mortgage?"

With this hurdle clearly visible before i the modernizing campaign planners s about to find a way to jump it without bar ing the shins of the government. Feeli was strong against lending governme money outright. So was conceived t plan whereby a national mortgage insu ance body, with authority from Congress insure against loss up to 10 or 20 per ce of all loans made by private lenders. T first figure was the government's, but bar ers held out for 20.

Adviser Deane pointed out that over a lo period of years losses on automobile a furniture installment buying averaged l than 2 per cent a year, that the U. S. co lose no more by guaranteeing 20, that banks would lose no more by accepting Though Congress had not had a chance to before this was being written, it was thou probable 10 per cent would be the figur

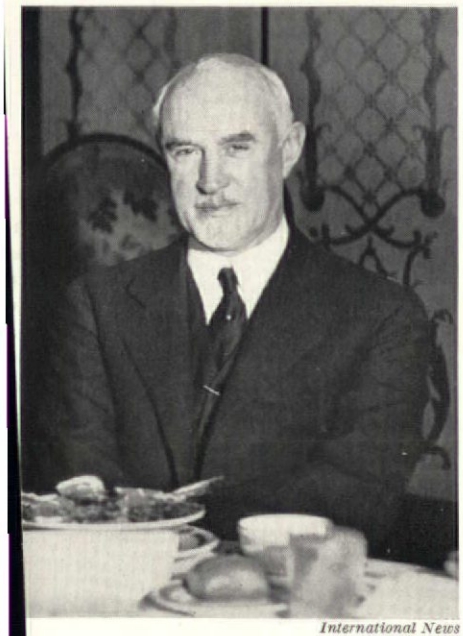
How to create jobs and not talk was problem that puzzled the councilors m All were agreed on one thing: bally should be kept to the minimum. Spen money for patriotic reasons, as testifie "Buy Now" and "Share Jobs" campai had never been successful. Since in hou as well as in daily buying the American lic loves a bargain modernizing at cut r

*Though he might contribute much or little to tal pow-wows, Secretary Roper is much sought aft cause his is the best conference room in town. Bi roomy, it is completely air conditioned.

OMORROW

ll be spent by January. Riefler

Three years ago Winfield Riefler, opposite, first had the notion that the U. S. ought to insure home mortgages. Three years ago his word had far less weight than it has today. Now as "economic interpreter" to the President, he is listened to with much respect. Since no one in Washington is so certain of the plan's success as he, Riefler has done all the defending against doubters.



International News

If the plan goes through, John H. Fahey, above, will not only have the Federal Mortgage Associations to look after, but all the housing agencies will be under his wing.

Acme

Underwood & Underwood

As he usually does, Frank Walker, above left, will stay in the background while someone else does the talking. Also as he usually does, General Johnson, above right, may do the talking. The General's ability to get action made him the inevitable choice for mouthpiece of the drive, through which it is hoped banks will lend building owners $1,500,000,000 before January for labor, materials, fees.

International News

As one who knew much about modernization drives, the counsel of Johns-Manville's president Lewis H. Brown, above, was much sought. To line up manufacturers and railroads, they turned to one who is something of a railroad man and industrialist himself, W. Averill Harriman, left. The automobile business contributed Albert L. Deane, right, to work out the details of selling repairs on installments.

Underwood & Underwood

To give as much advice but as little money as possible, Treasury Secretary Morgenthau lent his new assistant, Marriner S. Eccles, above, to the board of advisers.

Wide World

was proposed. It was thought manufacturers might cut list prices, banks might reduce interest, railroads might drop freight rates, and labor might drop its wage scales. Labor was the first to protest. Some manufacturers followed suit. So that although bulk shipments, quantity operations, and low interest rates will still create bargains, the plan makers have dropped the idea of reducing costs as much as 15 per cent.

With cut rates sidetracked as the principal sales appeal active selling and good service are counted on to get business. Canvassing may even be as thorough as in the Liberty Loan days; and through local architectural and engineering boards, composed of part paid employes, part unpaid high ranking professional men, owners will get the best available talent for even the smallest job.

Owners will be urged to take their problems to the local board for counsel. If requested to do so, the board will handle all details of the work, survey the property, make estimates, prepare plans, draw contracts with local contractors, supervise work, and arrange financing. Should the owner prefer to select his own architect, the advice of the board will be available free.

Backed up by the big publicity guns from Washington, each community will boom its own drive. Workers will be enlisted primarily from commercial agencies who stand to profit from construction business. Likely as not, there will be background of civic and social organization enthusiasm. Local boards will be cautioned, however, not to let their campaigns become dissipated by excess flag waving.

Possible features of the promotional campaign:

1. Each State, each city, will have its quota to account for.

2. A national competition for the best modernizing jobs may be instituted. Formal recognition may be given for the best community records.

3. Available to each community will probably be an A-to-Z plan for the drive combining the best promotional plans of previous efforts, detailing canvassing methods, telling how to conduct model house campaigns, exhibitions, etc.

Heart of the drive will be the financing. The U. S. insurance plan will work for a single type of loan, those wholly unsecured, not exceeding $2,000, paying 5 per cent per annum, and amortizable from periods of one to five years. Owners whose homes are unmortgaged or who have made interest and tax payments promptly will have no difficulty in obtaining local financing. Owners whose mortgages are in default may draw upon the $200,000,000 fund set up under the recently passed amendment to the Home Owners Loan Act of 1933.

For operation and as a reserve against bad loans, it will be necessary to get an appropriation from Congress, possibly $150,000,000, to carry the insurance company.

International

Charles Edison

In Washington will sit the national committee, headed, it is rumored, by Charles Edison, able son of the late inventor. A Republican, Mr. Edison is New Jersey's NRA administrator, is also president of Thomas A. Edison, Inc., and all other Edison enterprises. If he heads the modernization drive it will not be the first time he will have exhorted the public to spend. A year ago he pasted up on the walls of his plants a message urging employes to "buy something — buy anything, anywhere; paint your kitchen, send a telegram, give a party, get a car, pay a bill, rent a flat, fix your roof, get a haircut, see a show, build a house, take a trip, sing a song, get married." He will not, however, be quite able to do with U. S. money what he did with his own last fall when to each of his 3,000 employes he handed out a "Now is the Time to Buy" check for $5.

Sitting on the committee will be figureheads and workers, divided into five major divisions: (1) conduct of the campaign, (2) architectural and engineering service, (3) financing, (4) reduction of cost, and (5) industrial property rehabilitation.

With well over 50 per cent of the houses in the country in need of major or minor repairs, Washington believes that $1,500,000,000 spent by January 1, 1935, is not too much to expect.

New Construction. Bent on stirring up construction activity at once, Washington is far more interested in reorganizing completely present methods of financing new construction particularly residence construction. Many contributed to the new plan but no one more than Winfield W. Riefler, able "economic interpreter" to the President.

Though no newcomer to Washington, Winfield Riefler is a new name to Washington correspondents. A native of Buffalo, who followed his graduation from Amherst in 1921 with two years abroad in the Department of Commerce, he had served ten years in the Bureau of Statistics and Research of the Federal Reserve Board when he was called to head the Central Statistical Board of the administration. He seldom sees the President, but no major economic policy is approved without a Riefler O. K. Thus it was that Roosevelt dubbed him his "interpreting economist."

From his study of the collapsed mortgage market Riefler submitted to Walker a report the gist of which was:

1. An entirely new form of mortgage must be established to create confidence.

2. The new mortgage must be amortized. Heretofore people have obtained short term mortgages with no thought of actually paying them, but believing that at considerable cost, the mortgage would be renewed when it came due. Hence was piled up from 1920 to 1929 a mortgage debt of $21,000,000,000 from $7,000,000,000.

3. Interest must be cut down. Even 6 per cent without bonuses and other fees is too high.

4. One mortgage instrument must carry the entire transaction and run the entire period of amortization.

5. One per cent must be set aside with the government to insure holders against loss.

6. Investors should buy, not individual mortgages, but "government insured mortgage bonds," put out under that name by all private financial institutions that lend mortgage money and that comply with specifications required to get the government to insure them.

The abnormal increases in building, Riefler found, were due to the type of mortgage which gave money lenders excessive income not only in interest but in overall charges and renewals. Twelve per cent is a conservative estimate of the average cost of financing a home; it frequently runs as high as 30 per cent.

With this as a starting place, the government now proposes to establish a National Mutual Mortgage Insurance Corporation probably under the Federal Home Loan Bank Board, with authority to insure mortgages of one type only: fifteen to twenty year amortized loans bearing 5 per cent interest, up to as much as 80 per cent of the value of house and lot. Present plans limit the type of building to be so financed to 1- to 4-family houses, with no limit on the cost of the building. Later it is contemplated to bring all types of new building finance under the plan, apartment houses, office buildings, etc.

Should a mortgage go into default the U. S. insurance company will take over the property and work out the loan. It will not, however, pay the mortgagee in cash. Instead it will issue 3 per cent debenture bonds, which, guaranteed by the government, will be readily marketable. One favorable result of this phase of plan will be the continued liquidity of the mortgage market. Another will be the elimination of stress periods, with mortgage holders dumping property on the market and deflating values.

Insurance will cost the lenders 1 per cent per annum on the outstanding loan. Should the national insurance company is to become a mutual company, should the 1 per

prove excessive, part of the premiums will be reduced accordingly.

A secondary, and only slightly less significant part of the new financing is the contemplated establishment of local mortgage companies of new type. These, chartered by the U. S., supervised by the Federal Home Loan Bank Board, will be permitted to issue U. S. government guaranteed mortgage bonds against mortgages of the prescribed type, and will be permitted to label them as such.

Though detailed limitations upon the type of company to be established had not been determined last month, it was thought likely that regulations would be similar to those governing Federal savings and loan associations. A minimum capitalization will be required, possibly $5,0C0,000.

How much rescuing of existing mortgage companies will be done is another undecided question. One thing is certain — that the existing bad odor left behind by the dead and dying guaranteed mortgage companies of the boom year will be cleared away by forced ventilation. Possibly companies whose reputations can be revived will be aided in transforming themselves into government chartered institutions, and the U. S. may help out in refinancing some existing property.

Stepping this much further into the real estate business, the government's housing agencies will all be united under one huge department probably headed up by the present chairman of the Federal Home Loan Bank Board, John H. Fahey, whose control over the HOLC has earned him a place among Washington's leading new dealers.

Opposition. Far from having united support of real estate and financial interests, or even Administration advisers, the Riefler plan was vigorously walloped at preliminary conferences. Too experimental, said some. But most held that although it was not dangerous it would not do any appreciable good.

Prime objections were:

1. Because lending agencies could not make money under its terms, it would not be used much. The 1 per cent insurance, plus at least a ½ per cent for servicing, cut the net return to 3½ per cent. Most companies, it was thought, would rather put their faith in their own lending ability than pay the cost of insurance. To overcome reticence of lending agencies to insure their mortgages, Riefler counted on establishing a preference in the minds of home owners for insured mortgages, which would force banks and others to line up with the program.

2. The issuance of 3 per cent taxable bonds maturing three years after the maturity of the mortgage was held unattractive to lenders as a means of meeting the guarantee. Mortgagees would still have to carry the burden and cost of foreclosure, would have to pay back taxes and stand the loss of unpaid insurance premiums.

3. The Federal Mortgage Companies would not bring much new money into the field. Because of the low return on Federal Mortgage Association stock, associations would have difficulty raising the required capitalization. The guaranteed mortgage bonds were regarded as unattractive investments because they would either have to carry as low an interest rate as other more desirable government securities, or carry a rate that the companies would find difficulty in meeting.

As an alternative, real estate pushed forward its Federal Mortgage Bank plan (see THE ARCHITECTURAL FORUM, April, 1934, page 320) setting up a $500,000,000 corporation with authority to issue bonds against mortgages in its possession up to $5,000,000,000 with government guaranteed interest. The Treasury, however, turned thumbs down on it because it called for too much government money, and because it refused to guarantee any more bonds.

Result. Differences between the Riefler plan supporters and those who favor the Federal Mortgage Bank did not seem insoluble late last month. Following the first conference with the President it appeared likely that a committee representing both groups would be assembled. On how speedily they could reach a compromise depended the adoption of legislation by Congress at this session. Because the mortgage bank backers are real estate men, anxious to get some form of helpful measure adopted, and because economist Riefler is so certain of the workability of his plan, it was probable that most of the concessions would be granted by the realtors. Should Congress receive, even in the last few days of the session, an administration measure designed to help home owners, it will do its best to pass it. Home owners are voters — and all members of the House and a third of the Senate will be up for election this fall.

Possibility. There is a general undertone of sympathy in Washington for revolutionizing other things besides building financing. Building's production methods are obsolete. The industry needs to put itself on an efficient mass production basis. Housing engineers are already deep in the study of the possibility of prefabrication.

What the building industry knows is that one very powerful factor stands in the way of speeding up construction any more than it has been — organized labor. It can count on every possible form of obstruction that labor can throw in its path. But some in Washington are now saying what others have been saying for the last few years — "The day is not far away when companies like General Motors will step into the building business and teach it a few lessons."

When it does, it can count on Federal sympathy. In what way the U. S. would sympathize is not made clear. Subsidies? Probably not. But the time was never riper prefabricationists to make real headway.

FAHEY'S BONDS

get their guarantee and business looks up for his loan corporation.

TAKING lots of time, as is the custom when its members can engage in political fencing, the House last month passed 337 to 1 the bill guaranteeing the principal of HOLC bonds.

Immediately following, the corporation's bonds went above par for the first time. Though the President and Chairman John H. Fahey of the Federal Home Loan Bank Board favored inclusion of an amendment, previously passed by the Senate, to bar politics from HOLC appointments, the House refused to include it. Before the month was out it was expected that the bill, probably without the amendment, would be signed by the President.

To the building industry, most important of the bill's new provisions is one which sets up a fund of $200,000,000 for modernization of houses on which mortgages are in default. In preparation for the day when the Roosevelt signature makes the bill effective, alert architects were visiting lending agencies and loan applicants last month attempting to line up jobs for themselves.

Politics aplenty have hampered the corporation's business, but nonetheless its record, as of April 13, showed:

Mortgages refinanced	179,235
Amount involved	$518,986,994
Agreements signed with mortgagees	855,627
Appraisals completed	637,726

Though 20,384 loans totaling $56,266,455 had been closed by the "wholesale department" which handles refinancing of mortgages held by closed institutions, there were still distributed among 3,900 defunct companies 234,809 mortgages, amounting to $564,061,760, still to be acted upon.

Though some districts were free from politics, almost all were bothered by mortgagees pressing mortgagors for reductions of principal in order to create artificial distress. HOLC investigators learned of one Massachusetts lending company which sent letters to scores of its borrowers asking for payment or reduction of principal. When they were not forthcoming the company solicitously recommended applying to the local HOLC board for relief, pointing out that U. S. terms were easier.

Most such efforts failed, however, for the bill specifically limits extension of relief to those whose mortgages were in default prior to June 13, 1933, except when default after that was directly traceable to unemployment or economic conditions beyond their control, or where the mortgage company was in the process of liquidation. In Washington Chairman Fahey saw much opportunity for political wangling in interpretation of "economic conditions," warned all regional heads to observe carefully the intention of the law.

$5,000, HIS JOB, HIS LICENSE

are what it may cost architect Walsh to make money on small houses. Twelve jobs in the office may prove it was worth it.

NEITHER by the A.I.A. nor by the NRA are architects forbidden to act as general contractors or from letting separate contracts as owners' agents. But so perpetual is the Institute's frown on the practice that it might just as well be written into its rules of practice. It lowers professional standing.

Some architects, however, have been forced by the lean years to a willingness to trade in a little professional standing for some income. One who did was Harold Vandervoort Walsh. To date, it has cost him about $5,000. It may cost him his license to practice in New York, his job at Columbia University. These things notwithstanding, architect Walsh is convinced his way is the best way for architects to reestablish themselves in the small house business.

Harold Walsh has been professor of construction in Columbia's School of Architecture for 16 years. Before that he was in the army, having previously had his own office in Yonkers, N. Y. During the year he has acquired a keenly developed abhorrence of "jerry building," a frank distrust of prefabrication, and a firm conviction that architects, can if they will, "beat the speculative builder at his own game."

As every architect knows, the latter's own game is to throw together, sometimes securely, more often not, houses that look like more money than they cost. He sells house and lot complete for a sum with a bargain basement ring to it — $5,990, $7,990 — clearing from $1,500 to $3,000 on the deal.

From the builder Professor Walsh would borrow no shoddy practices, but would appropriate the one thing that makes owners flock to the builder instead of to the architect when they want to build a house — a complete house at a fixed price. That the price might include 12 to 20 per cent financing charges, or that he might be getting a 30-cent instead of a 40-cent house are of less consequence to the buyer than the assurance that he will only have to pay the tag price.

In his unsubtle way the speculative builder has encouraged laymen to believe that architects are luxuries, unaffordable by the poor man. Their "free architectural service" offer sounds logical to the man who has been educated to think of architects as sketch makers. Under the Walsh plan the client gets "free general contracting" — for there is no general contractor.

Without assuming the title or all his functions and responsibilities, the Professor places added responsibilities on the subor special contractors,* takes over himself many of the general contractor's duties.

Such was the general set-up when in 1932 and 1933 Walsh formed with a Columbia colleague, Alexander T. Saxe, the Small House Advisory Service. For a fee of 10 per cent, the Advisory Service offered to plan and design the house, secure estimates, obtain competitive bids from special contractors, prepare contracts between owner and contractors, develop time schedules, supervise completely, give financial counsel.

To prove that this system would save the client money the Advisory Service obtained bids from general contractors to match against the sum total of bids obtained separately. Comparison on ten different houses showed owner savings of from 10 to 15 per cent and in a few cases almost 25 per cent.

Premier

Professor Walsh

Though the details of bookkeeping, looking after odds and ends, and dealing with contractors soon proved that 10 per cent was too low a figure for the work involved, the Small House Advisory Service stepped into great activity.

*NRA code wordings make no mention of subcontractors. From now on they will be special contractors. Architect Walsh's mention of subcontractors proved to be a serious error, for in a lawsuit it was held that use of the word subcontractor implied there was a general contractor, and that Walsh was it.

In the first few jobs difficulties aplenty cropped up, revealing serious flaws in Small House Advisory Service's way of doing business. On one job, two unmarried sisters found many causes for complaint: among them, removal of a stone wall to provide foundation walls, substitution of one form of wallboard for another, poor quality of the painting, leakiness of the cellar, a smoking fireplace. For all of these the client held the architect as general contractor responsible, demanded payment.

To each of the charges, the architect maintained that he was not the general contractor, that he had been acting only as agent for the owner. To support his contention he introduced as evidence the client's checks made payable to the contractors.

Walsh's responsibility hinged on the unfortunate occurrence of the word "guarantee" in a brochure explaining the functions of the Service. For instance, one paragraph stated, "A complete itemized statement of the above (*i.e.*, bids from special contractors) presented to owner guarantees that this cost includes everything and is final."

It did not say who guaranteed the cost; but the plaintiff's lawyer was able to persuade the judge that obviously the Small House Advisory Service was the "guarantor."

Upshot: Architect Walsh was held liable for all the claims of the painter, totaling $300. It is being appealed.

Not content with obtaining a judgment the clients sought through President Nicholas Murray Butler to have Walsh removed from the Columbia faculty, which to date Butler has refused to do. They are trying also to have Walsh's license to practice taken away in New York State. Formal charges which are to be answered April 2 have been lodged against him.

Despite the set-backs, Walsh found new partners and insisted upon pushing ahead with the plan. His new partners are Alton L. Craft and Harrison Gill who have been successfully doing houses on the "separate contract" basis and had a fine background of experience to add to Walsh's. Small House Advisory Service has been dropped and Craft, Gill and Walsh, Architects, the firm name. But more important than his new partners are the improved methods of conducting business which the office has drawn up.

To eliminate any possibility of confusion the architects' position on the job, the new contract reads that the architect "will endeavor to guard the owner against

THIS AGREEMENT made the .....day of.....in the year Nineteen Hundred and .....

.....by and between .....

of .....

hereinafter called the Owner, and GRAFT, GILL and WALSH of 247 Park Avenue, New York, hereinafter called the Architect.

WITNESSETH, that whereas the Owner intends to erect .....
remodel .....

.....

at .....

NOW THEREFORE, The Owner and the Architect, for considerations hereinafter named, agree as follows: The Architect agrees to perform, for the above named work, professional services as hereinafter set forth.

The Owner agrees to pay the Architect for such services a fee of .....per cent of the cost of the work, with other payments and reimbursements as hereinafter provided, the said percentage hereinafter referred to as the "basic rate". Should the work be done under separate contracts, instead of under one general contract, an additional fee of five per cent of the cost of the work shall be paid for the extra services hereinafter set forth.

The parties hereto further agree to the following conditions.

1. **The Architect's Services:**—The Architect's professional services consist of the necessary conferences, preliminary visits to the site, preparation of preliminary studies and sketches, working drawings, specifications, large scale and full size details as may be required for the execution of the work, preparing preliminary estimates, securing quotations and bids, drafting contracts, the issuance of certificates of payment, the keeping of accounts, securing releases and guarantees, and the general administration of the business and supervision of the work.

2. **Separate Contracts:**—In case the work is let under separate contracts the Architect shall, in addition to the services described above, keep accurate ledger accounts for the Owner with each separate contractor, render more frequent and detailed supervision, co-ordinate the work of the various trades.

3. **Supervision of the Work:**—The Architect will endeavor to guard the Owner against defects and deficiencies in the work of contractors, but he does not guarantee the performance of their contracts. The supervision of the Architect is not to be understood as continuous personal supervision. When authorized by the Owner, a clerk-of-the-work acceptable to both the Owner and the Architect, at a salary acceptable to both and paid by the Owner as provided in Art. 4 and 8, may be employed.

4. **Reimbursements:**—The Owner shall reimburse the Architect for the following: cost of transportation incurred by him or his assistants while traveling in discharge of duties connected with the work; cost of living when remaining out of New York City overnight; long distance telephone calls and telegrams necessary to the proper and efficient conduct of the work; cost of blue print copies over five (5) of any drawing or specification connected with the work; salary of Clerk-of-the-works as provided in Art. 4; fees for heating, ventilating, electrical or mechanical engineers as provided in Art. 8.

5. **Extra Services:**—If the Architect is caused extra draughting or other expense due to changes ordered by the Owner, or due to the delinquency or insolvency of the Owner or any contractor, or as a result of damage by fire, he shall be equitably paid for such extra expense and the service involved. Work let on a cost-plus basis shall be subject to an extra charge of two percent (2%) due to the additional accounting and supervision required.

6. **Special Cases:**—If any work or portion of the work designed or specified by the Architect is abondoned or suspended the Architect is to be paid for service rendered on account thereof. Any work done under the supervision of heating, ventilating, electrical or mechanical engineers when the fees of such engineers are reimbursed to the Architect, and any articles not designed by the Architect but purchased under his direction shall only carry the "basic rate" without any extra percentages. Contracts for well drilling shall carry a fee of five percent (5%) and no other fee. Contracts for finish grading and landscaping shall carry a fee of ten percent (10%) and no other fee. Special furniture and equipment designed by the Architect and not a permanent fixture in the building shall carry a fee of twenty percent (20%) and no other fee.

7. **Survey, Borings, and Tests:**—The Owner shall, so far as the work under this agreement may require, furnish to the Architect the following information: A complete survey of the building site giving grades and lines of streets, pavements and adjoining properties; the rights, restrictions, easements, boundaries, and contours of the building site, and full information as to sewer, water, gas and electrical service. If required, the Owner is to pay for borings, test pits, chemical, mechanical or other tests.

8. **Payments:**—Payments to the Architect on account of his fee shall be made as follows, subject to the provisions of Articles 4, 5 and 6:

Upon the signing of this agreement a retainer of ten percent (10%) of the basic rate computed upon the proposed cost. This retainer is for conferences, preliminary visit to site or any other preliminary work which the Architect may do for the Owner.

Upon completion of preliminary studies, a sum sufficient to increase payments on the fee to 20% of the basic rate computed upon a reasonable estimated cost, based on the studies.

Upon completion of specifications and general working drawings (exclusive of details) a sum sufficient to increase payments on the fee to 60% of the basic rate computed upon a reasonable estimated cost based on such completed specifications and drawings. Any amounts which have become due under the provisions of Article 4 shall be paid at this time.

On the first day of each month during the execution of work and in the same proportion which the amount of work completed by contractors bears to the total of all contracts, payment shall be made on the balance of the basic rate and the separate contract rate computed upon the final cost of the work. Payments shall also be made on the same day on all charges incurred during the previous month under any provisions of Articles 4, 5 and 6.

9. **Definition of the Cost of the Work:**—The cost of the work, as herein referred to, means the cost to the Owner, but such cost shall not include any architect's or engineer's fees or reimbursements or the cost of a clerk-of-the-works.

When labor or material is furnished by the Owner below its market cost the cost of the work shall be computed upon such market cost.

10. **Ownership of Documents:**—Drawings and specifications as instruments of service are the property of the Architect whether the work for which they are made be executed or not.

11. **Successors and Assignments:**—The Owner and the Architect, each binds himself, his partners, successors, executors, administrators, and assigns to the other party to this agreement, and to the partners, successors, executors, administrators and assigns of such other party in respect of all covenants of this agreement.

Except as above, neither the Owner nor the Architect shall assign, sublet or transfer his interest in this agreement without the written consent of the other.

12. **Arbitration:**—All questions in dispute under this agreement shall be submitted to arbitration at the choice of either party.

13. **Estimates:**—The Architect in accordance with Article 1 procures estimates and draws up contracts for Owner and Contractors to sign. The Architects will take steps wherever possible to protect Owners interest but under no condition or circumstances will guarantee estimates or be responsible for the performance of contrators.

The Architect hereby acknowledges receipt of $.....as a retainer, provided for under Article 8.
The Owner and the Architect hereby agree to the full performance of the convenants contained herein.
IN WITNESS WHEREOF they have executed this agreement, the day and year first above written.

.....Owner

.....Architect

By .....

r those who would experiment — the architect-owner contract

fects and deficiencies in the work of contractors, but he does not guarantee the performance of their contracts."

¶Further, the firm draws a separate contract for itself to cover general conditions, through which it assumes for a specified sum, usually $50 to $200, a contract for all odds and ends, normally cared for in the "slush fund" of a general contractor. This would include cleaning up, washing windows, polishing hardware, miscellaneous repairs, construction of a shed, etc. So far it has proved to be a workable solution of a problem that architects knew existed, but were not aware of the proportions to which it might grow. Other high spots of Craft, Gill and Walsh's contract are:

1. Specific definition of an architect's services:

"The architect's professional services consist of the necessary conferences, preliminary visits to the site, preparation of preliminary studies and sketches, working drawings, specifications, large-scale and full-size details as may be required for the execution of the work, preparing preliminary estimates, securing quotations and bids, drafting contracts, the issuance of certificates of payment, the keeping of accounts, securing releases and guarantees, and the general administration of the business and supervision of the work.

2. "The architect . . . procures estimates and draws up contracts for owner and contractor to sign. The architects will take steps wherever possible to protect owner's interest but under no condition or circumstances will guarantee estimates or be responsible for the performance of the contractors.

3. Payments to the architect are arranged so that as little as possible is due him on completion, thereby forestalling the delayed payments that clients are apt to make for minor deficiencies.

4. Contracts between owner and contractors call for "labor and materials." Although the architects might be able to save money by buying materials direct, they would lay themselves open to blame for exceeding the budget.

5. Each trade is required to clean up its own work.

6. Contractors are never referred to as subcontractors, always as contractors (or perhaps now, under code provisions as special contractors).

7. Items not included in the estimated cost of a house are carefully listed. Experience has definitely taught Walsh that an owner expects everything to be included in the cost of a house, and rightly so. For the cost of undertaking to build and move into a house to him is the cost that is indicated by check stubs in his book. To eliminate any discussion, he issues a warning to all clients detailing all the things he is not including in the cost budget, and of course invites them to include whatever items they may choose, so long as it is previously understood.

6. The firm has adopted 15 per cent as its fee, a necessary revision in view of increased overhead. This fee is in addition to the fixed sum provided for under the contract for "general conditions." One major increase in overhead results from the necessity of keeping more complete, more accurate books on all operations.

Walsh-Built for $4,500

With the revised contract forms, the firm is doing business. Twelve jobs are running through the office now. Said architect Walsh in summing up the plan's advantages and disadvantages: "We are not having any more disagreements than ordinarily arise between architect and client. There is more actual work to be done on each job — but then the increased fee covers that. This type of service requires one thing above all others — a painstaking superintendent whose word is law on the job. In the past, it was almost necessary in some cases for an architect to obtain written permission from the contractor to go on the job. Now he is the one boss.

"There is not really room for two profits on a small house job. Heretofore the architect has been cut out; under our plan the general contractor is out. I have been embroiled in some disagreeable business trying to get the plan working, but I believe the saddest days are over. Probably our system is not foolproof yet, but most of the holes have been filled up."

CODES

THREE CHAPTERS

and one authority make up the code score for the month.

THREE more chapters, IV, V and IX, of the Construction Code went into effect last month. These covered elevator manufacturers, cement gun contracting, and tile contracting.

¶First to get its code authority organized was the General Contractors' division. Its membership:

W. F. Austin, President, W. E. Wood Company, Detroit, Mich. (Builders)

*James B. Bray, member of firm, W. W. Boxley & Company, Roanoke, Va. (Heavy Construction and Railroad)

E. T. Foley, Chairman of Board, Foley Brothers, Inc., Pasadena, Calif. (Heavy Construction and Railroad)

E. P. Forrestel, President, Cold Spring Construction Company, Akron, N. Y. (Highway)

Nick F. Helmers, Vice-President, Siems-Helmers, Inc., St. Paul, Minn. (Heavy Construction and Railroad)

A. E. Horst, Secretary-Treasurer, Henry W. Horst Co., Philadelphia, Pa. (Heavy Construction and Railroad)

W. A. Klinger, President, W. A. Klinger, Inc., Sioux City, Iowa (Builders)

*William C. Miller, Partner, W. C. and A. N. Miller, Washington, D. C. (Residential)

R. E. O'Connor, President, J. C. O'Connor and Sons, Inc., Fort Wayne, Ind. (Highway)

E. P. Palmer, Partner, Senior and Palmer, New York, N. Y. (Heavy Construction and Railroad)

L. E. Ray, Secretary-Treasurer, Diamond Engineering Company, Grand Island, Neb. (Highway)

*E. Marshall Rust, Vice-President, Rust Engineering Company, Pittsburgh, Pa. (Engineering Constructors)

F. L. Shackelford, Vice-President and Treasurer, Potter & Shackelford, Inc., Greenville, S. C. (Builders)

*Charles H. Simpson, President, Municipal Paving and Construction Company, Nashville, Tenn. (Highway)

A. C. Tozzer, Executive Vice-President, Turner Construction Co., New York, N. Y. (Builders)

*Robert A. Whidden, President, The Whidden Company, Boston, Mass. (Builders)

H. B. Zachry, President, H. B. Zachry Company, Laredo, Tex. (Highway)

¶Granted a stay from operation under the Construction Industry Code, except as to hours, wages and labor provisions, until they could prepare a code for themselves, developers and home builders, through the National Association of Real Estate Boards sent a separate code to Assistant Administrator George L. Berry for approval. In its tentative form it struck out boldly into the principal evils of subdeveloping. It would rule out:

1. So-called "free lot" offers.

2. Sale of property without notifying the purchaser of restrictions on the use of the property, if restrictions exist.

3. Publication of advertising which is misleading or inaccurate in any material particular or which intentionally misrepresents properties, terms, values, policies or services of the business conducted.

4. "Contract raiding" — inducing prospects to break sales or lease contracts with competitors for the purpose of making new contracts with them.

*Not Members of Associated General Contractors of America.

FOREMOST CITIZENS

report overbuilding, building profitless with labor rampant.

A RESIDENTIAL building survey made public late month before last by C. W. Young & Co., a New York City investment management firm, was based on a questionnaire sent to 542 "leading citizens of their respective communities, such as bank presidents and directors, officers and heads of industrial corporations, and others who might all be classified in the ranks of the foremost citizens." In checking the answers the company noted:

"1. A pronounced overbuilt condition, though the degree is less than many observers believe.

"2. Some evidence of rising rentals, which usually foreshadows an increase in building activity.

"3. A practical negative response to the question of knowledge of contemplated construction, from which the conclusion follows that little improvement will be noted immediately.

"4. The chief deterring factor toward revival is the fact that building is not considered profitable from an investment standpoint.

"5. The factory fabricated house as a means of stimulating revival apparently evoked little enthusiasm."

Approximately 50 per cent of the replies indicated an overbuilt condition, this condition being most serious in the large cities and grading steadily downward in the smaller communities, where, in a number of instances an actual shortage of adequate housing was reported. The sections reported most overbuilt were the North and Middle Atlantic States, the Southern States and the Pacific Coast. A more nearly balanced condition was found in New England, the Middle Western States and the Rocky Mountain section.

The survey termed the five per cent affirmative return on question three, regarding contemplated construction, "extremely disappointing." One important obstacle in the way of increased residential construction was said to be the stand taken by labor in the building trades against concessions in wage schedules, despite widespread unemployment.

"While it is true," the report indicated, that building labor has suffered tremendously through unemployment, an important reason for this condition is the high wage level which it has attempted to exact from the consuming public. These wage rates to a disinterested observer seem to be exhorbitant on the basis of training required, the service rendered, or the value of the service as compared to wages paid in other branches of industry. Skilled labor in the building trades if fully employed at union rates would receive considerably in excess of $300 a month, which is all out of proportion to its economic value."

Forty-eight per cent of the answers received indicated knowledge of labor employed for less than union wages. The conclusion was drawn, therefore, that the hiring of men at below union wages has been prevalent throughout the country, and that much of the rather limited construction that has gone on has been done at much lower than union rates.

Seldom is there a survey these days without at least one question on prefabricated houses. It was admitted in the survey that "Most factory fabricated houses have been considered in the $2,000 to $3,000 class," and that "the answers might have had more significance if this price class had been used rather than the one taken."

"Savings of the group of people who would be interested in a house of this price class, however, have been largely wiped out, and it is comparatively easy for them to rent accommodations of a sort at very low rentals," the survey said in explanation. ". . . In the higher-priced bracket, greater potentialities were believed to exist and it was largely for this reason that the last question was asked."

Some comments received anent the prefab question:

"We do not want them here."

"But what is to be done with the present old houses?"

"It is barely possible that such a proposition would sell."

"Premature"

RESIDENTIAL BUILDING SURVEY — SUMMARY BY GEOGRAPHIC DIVISIONS

In Terms of Per cent of Total Answers to Each Question

(Reprinted from C. W. Young & Co.'s "Survey of Residential Construction in the U. S.")

	New England	*North & Mid-Atlantic States*	*Southern States*	*Middle West*	*Rocky Mtn. & Prairie*	*Pacific Coast*	*Total*
1. Badly Overbuilt	3	22	22	14	6	11	14
Slightly Overbuilt	28	40	57	30	19	78	36½
About Balanced	52	25	14	39½	56	11	35
Slightly Underbuilt	15	12	7	11½	19	0	13
Badly Underbuilt	2	1	0	5	0	0	1½
2. Is it easy to rent satisfactory living quarters?							
Yes	78	87	85	75	62	89	80
No	22	13	15	25	38	11	20
3. Has there been a recent tendency for rents to rise?							
Yes	5	18	36	36	12	33	20
No	95	82	64	64	88	67	80
4. Is any considerable residential construction contemplated in your community?							
Yes	2	8	0	7	0	0	5
No	98	92	100	93	100	100	95
5. What are the principal reasons why such construction is not being done?							
Oversupply	14	19	26	9	12	27	16
High Cost of Building	9	12	12	8	12	12	10
Lack of Purchasing Power	27	19	21	25	9	23	22
Lack of Mortgage Money	15	23	17	27	23	15	21
Not Profitable as an Investment	34	27	24	30	38	23	30
Taxes				1			
Lack of Confidence	1				6		1
6. Is union labor employed for the most part in local construction?							
Yes	57	78	58½	60	53	89	67
No	43	22	41½	40	47	11	33
7. Do you know of any offers by labor to work for less than union wages?							
Yes	39	58	45	51	29	45	48
No	61	42	55	49	71	55	52
8. Would factory-fabricated houses of standard design, priced at around $4,000 possessing advantages of a $6,000 house, stimulate building in your community?							
Yes	21	23	9	18½	7	11	19
No	79	77	91	81½	93	89	81

THE PWEHC SEIZES

land in Atlanta. Howard Whipple Green's facts maintain housing's economic soundness.

ONE day early last month U. S. Treasury expenditures to the account of the Public Works Emergency Housing Corp. leaped from $1,930 to $50,000. Twenty-three thousand of this went to make the PWEHC possessor of its first piece of real property. What the PWEHC bought was a 70,000 sq. ft. tract in Atlanta, Ga., on which stood 23 frame shacks and stores, entirely occupied by Negroes.

As it paid over this cash, the PWEHC called upon the Attorney General to file condemnation proceedings in Federal Court which will make it owner of an additional 730,000 sq. ft. of Atlanta slums, completing acquisition of all the land needed to proceed with the building of Atlanta's $2,100,000 University Housing Project, approved by the PWA last Fall as a limited dividend corporation scheme (THE ARCHITECTURAL FORUM, November, 1933, page 428), and later disapproved because of the local company's failure to meet equity requirements.

Explained Secretary Ickes on the occasion of the housing corporation's first exercise of its right to condemn land:

"The present owners of properties which are not under consideration for housing projects in Atlanta and elsewhere should not consider the institution of condemnation proceedings as a threat or a reflection on the property owners. It is in most instances on a procedure to expedite the acquiring of clear title. In some cases, however, it is necessary because of the unreasonableness of owners who are attempting to sell at exorbitant prices."

It was indicated that procedure in connection with the Atlanta project would serve as a precedent for future PWEHC activities. After a period of twenty days following institution of proceedings and during which time property owners affected are free to negotiate with the Government, the Government may file a declaration of taking by depositing with the court a sum of money to be held in escrow pending determination of the suit. The PWEHC may then take possession, after notice to vacate has been given, raze existing slums and construct new buildings.

✚Meanwhile, on local fronts nothing more genuinely important than Howard Whipple Green's "Analysis of a Slum Area in Cleveland" made housing news last month. In it, cold figures gathered by able Statistician Green and a staff of CWA workers for the Cleveland Metropolitan Housing Authority went to show how slum districts cost a city more than twice as much as the average metropolitan area of equal population.

The survey found a typical Cleveland slum area, in which 2.47 per cent of Cleveland's people dwell, to require 14.4 per cent of the city's fire department costs, 6.5 per cent of the police costs and other expenses as high or higher (see box, below). The area's cost for all expenses was approximately 6 per cent of the city's total.

Involving a detailed study of land and building values, the income from real estate taxes and itemized accounts of the various expenditures necessary to maintain and operate the neighborhood, the analysis seeks to determine whether or not the assumption is correct that the real estate tax income fails to meet the costs of operation of a slum area.

With a tax rate income of $225,000, the area proved to have cost the city, county and Board of Education $1,357,000 during the year 1932 (see box, below). Beside this amount, the area received an additional $615,000 from charity organizations.

Calling the slums "perhaps the city's most expensive luxury," Mr. Green showed that the district was receiving about $1,117,000 a year more than the $785,000 required by the average area in Cleveland with equal population.

Some miscellaneous findings:

Twelve per cent of the deaths from tuberculosis occurred among the 2.5 per cent of the population in the area.

Eight per cent of the relief families, in 1931 and 1932, lived in the district, and six per cent of the jobless of January, 1931.

The area had over a period of years 21 per cent of Cleveland's murders, 26 per cent of its houses of prostitution, seven per cent of its Juvenile Court cases, and ten per cent of the mothers of illegitimate births.

STATEMENT OF INCOME AND DIRECT EXPENSES OF MAINTAINING A CLEVELAND SLUM SECTION

(Reprinted from "An Analysis of a Slum Area in Cleveland")

Income:	*Cuyahoga County*	*Cleveland City*	*School Board*	*Total*
Tax-Rate Income	$ 43,926	$ 90,364	$ 90,745	$ 225,035
Expenses:				
Mothers' Pensions	$ 26,659			$ 26,659
Tuberculosis Cases	67,704			67,704
Juvenile Court Cases	6,375			6,375
County Child Welfare Cases	45,187			45,187
Soldiers' and Sailors' Relief Committee	30,397			30,397
Fire Department		406,159		406,159
Police Department		255,597		255,597
Ash and Rubbish Collection		11,450		11,450
Street Cleaning		2,419		2,419
Garbage Collection		13,079		13,079
Street Lighting		18,570		18,570
Sewer Maintenance		3,128		3,128
Library		33,000		33,000
Bath House		22,950		22,950
Play Grounds		990		990
Milk Fund		6,499		6,499
Health Department		44,888		44,888
Board of Education			361,927	361,927
Total	$ 176,322	$ 818,729	$ 361,927	$1,356,978
Operating Loss	$ 132,396	$ 728,365	$ 271,182	$1,131,943

Community Fund and Other Unofficial Agency Expenses:	
Neighborhood Centers	$50,686
Visiting Nurse Association	3,138
Maternity Hospital	2,390
Childrens' Bureau	8,310
Cleveland Humane Society	46,292
Day Nursery Association	13,807
Associated Charities, Red Cross, Jewish Social Service Bureau	490,836
Total	$ 615,459
Total Cost of Maintaining Section	$1,972,437
Total Cost of Maintaining Section in Excess of Income	$1,747,402

Concluding his report, Mr. Green declared that "The rebuilding of this section of the slum area in Cleveland is sound economically. Without any doubt some expenses of the Government will be increased, but others will be considerably decreased. Fire and police costs should drop considerably. The misery of the inhabitants should become less acute and the menace to the entire community, which any section of crime, vice, delinquency and disease is bound to be, should be greatly reduced if not entirely eliminated."

Statistician Green, a consultant to the

Howard Whipple Green

Housing Division of the PWA, is famed as irector of Cleveland's comprehensive Real roperty Inventory, forerunner to the overnment's recently initiated Real Propty Inventory. Out of some 60 cities in hich CWA workers are taking this census, aspar, Wyo., and Columbia, S. C., were rst last month to report. In both Caspar nd Columbia are 17,807 homes, 432 of hich were reported as unfit for use, 8,273 need of repair.

ENGLAND IS ASSURED

of further subsidies for housing as decency's ransom.

In month-before-last's London elections a topmost issue was housing, and directly after his partly Communist following had won a majority of the seats in the County Council from the 27-year-strong Municipal Reform party, Laborite Leader Herbert Morrison clarified his stand by proposing to build at once 100,000 structurally separate homes for London's poor.

Building material shares inched up at this, then soared, as a week later Sir Edward Hilton Young, the Minister of Health, issued a pronunciamento for the National Government promising a five-year, 300,000-house program, based on plans submitted at the Ministry's invitation of April, 1933, and further legislation, next Fall, to accommodate a still larger undertaking in which probably 700,000 houses will be renovated or replaced.

The Minister's statements, widely said to have been prompted by London's action, defined a new attitude on the part of the MacDonald Government, which since 1931 has held low its expenditures for housing in the interests of national economy. The word "decent" has been flying lately, however, and Sir Hilton Young has been roundly criticized. In connection with its new program, the Government will appoint a Housing Minister, who will head a new department under the Minister of Health. "This step serves two purposes," explains the Manchester *Guardian*. "It saves the Government from the unpleasant necessity of demanding Sir Hilton Young's resignation. It will also produce an impression in the country that the Government are at last going to act with great energy."

The five-year building program will be launched at once, for the Ministry has already approved 285,189 of the house and apartment projects turned in by 1,428 of England's 1,716 housing authorities (organizations of which type the U. S. has six). So far, the program includes demolition for 266,851 houses and replacement of 1,240,182 persons. Under the 1930 subsidy act, the Exchequer will provide a required £115,000,000 over a period of 40 years. The local housing authorities will themselves supply about a fourth of the total cost of the projects. Continuous employment will be furnished 110,000 men throughout the five years.

Keystone

Sir E. Hilton Young

In speaking of the larger program to be ready by Fall before a conference of the Association of Municipal Corporations, Sir Hilton Young outlined the following principal points: (1) Re-housing of overcrowded families at or near the site of their original homes; (2) Wide adoption of flat building; (3) Re-housed areas to be newly developed and planned; (4) Compulsory powers for housing authorities to acquire property for redevelopment schemes; (5) Compulsory powers to buy property suitable for reconditioning; (6) Optional local powers to create commissioners for the management of publicly owned housing estates, and (7) A Government subsidy or grant. He provided no details as to the amount of the new subsidy or as to the terms on which it would be granted, but he did say "The nation's help will be given in no ungenerous spirit."

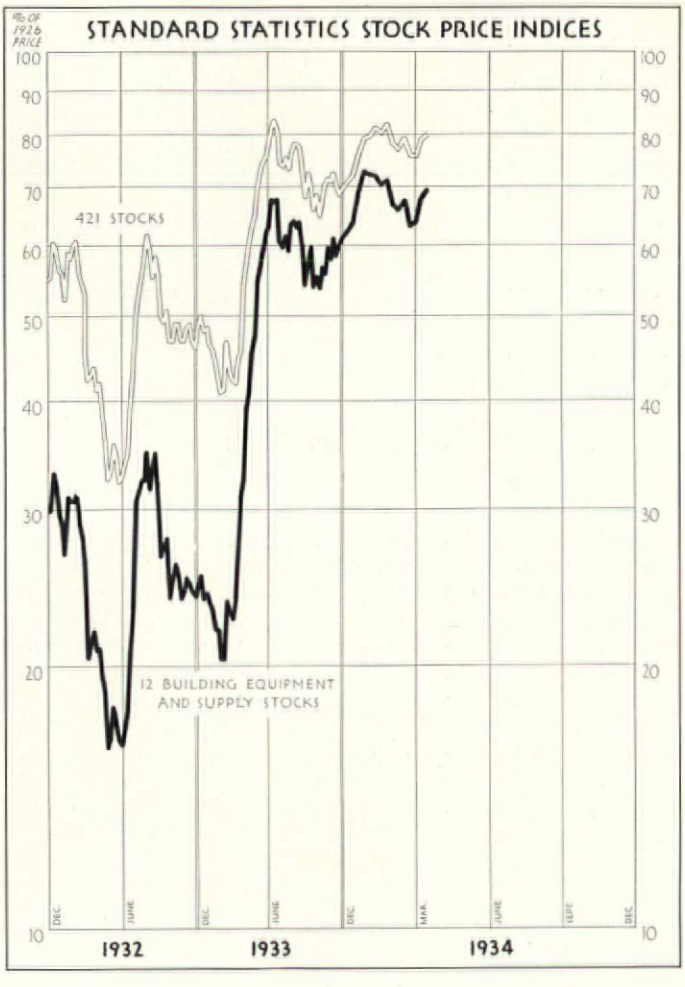
Figures issued last month by England's abundant and powerful building societies disclosed no Governmental stinginess to date. These showed that 2,175,000 houses have been built in England since the Housing Act of 1919 (See THE ARCHITECTURAL FORUM, February, 1934, page 142), and that of the approximate 1,900,000 of these built within the past ten years 40 per cent were subsidized. The British financial paper, *The Economist*, estimates that between 5,000,000 and 6,000,000 more houses will be required within the next twenty years.

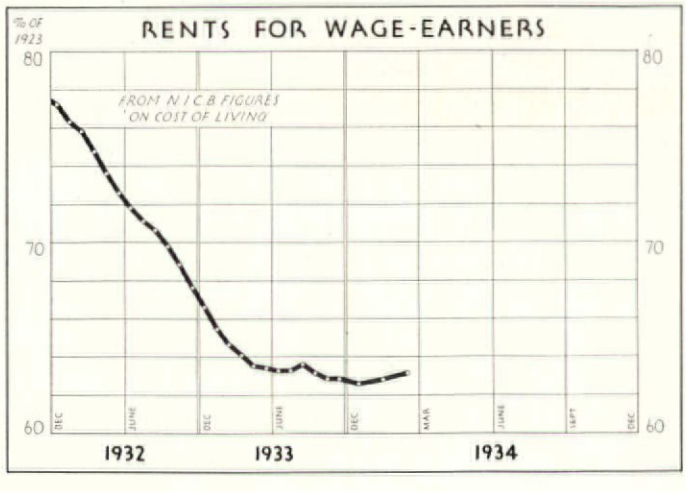
PROPORTION OF TOTAL CITY EXPENDITURES MADE IN A CLEVELAND SLUM SECTION

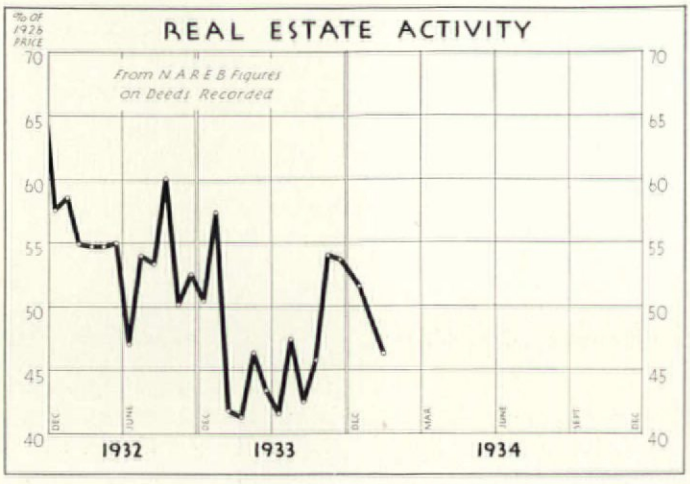
(*Reprinted from "An Analysis of a Slum Area in Cleveland"*)

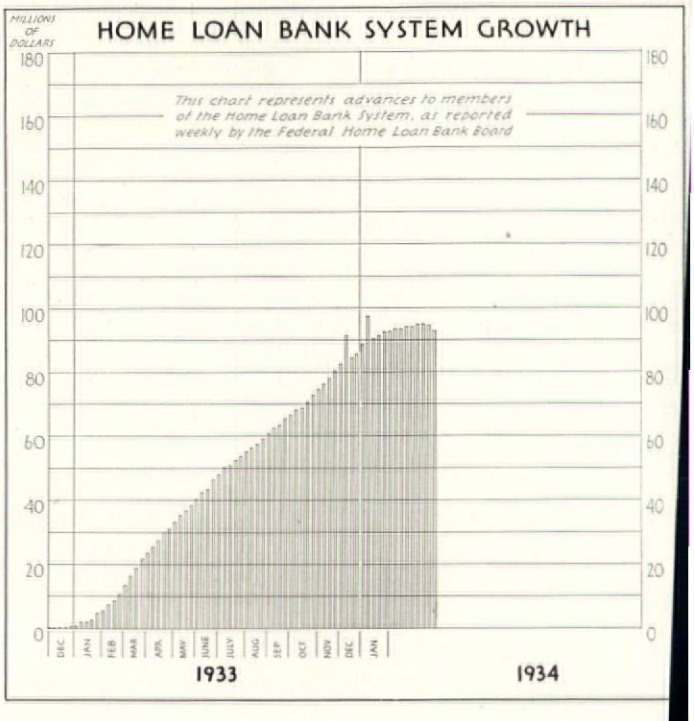
Basic Data:	*Cleveland*	*The Section*	*Per Cent in The Section*
Population, 1930	900,429	22,236	2.47
Appraised Value of Property	$1,086,382,570	$8,153,470	.75
Area in Acres	45,395	333	.73
Services Rendered:			
Fire Protection	$ 2,811,923	$406,159	$14.44
Police Protection	3,947,508	255,596	6.47
Public School Education	12,000,000	361,927	3.02
Enrollment	148,501	3,587	2.42
Per Capita Cost	81	101	
Health Work	1,904,057	138,427	7.3
Relief and Social Service	8,987,682	728,702	8.1

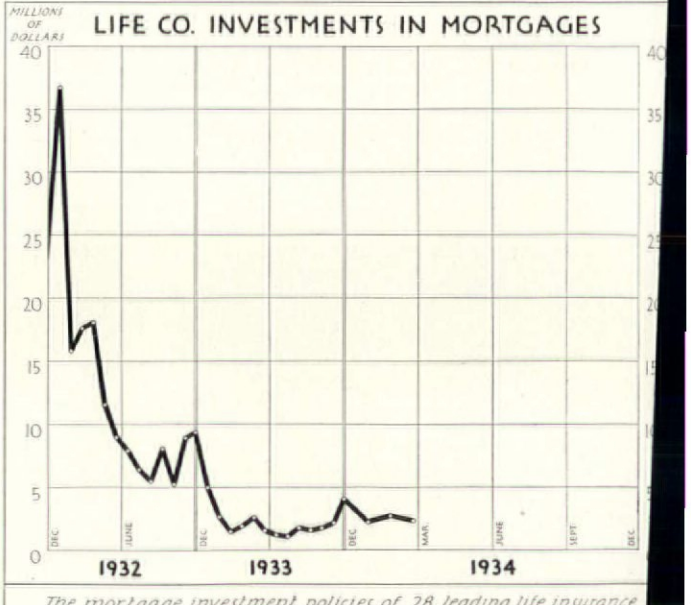
CHARTS





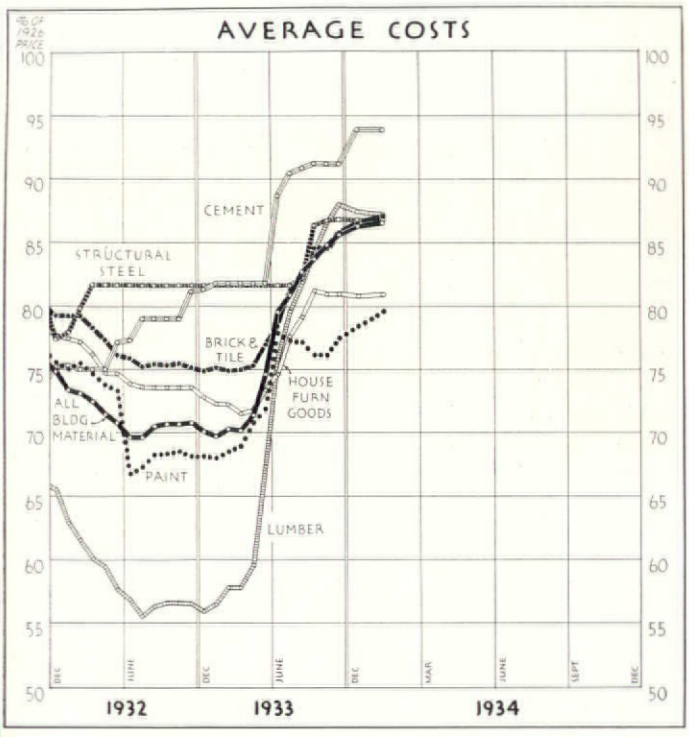


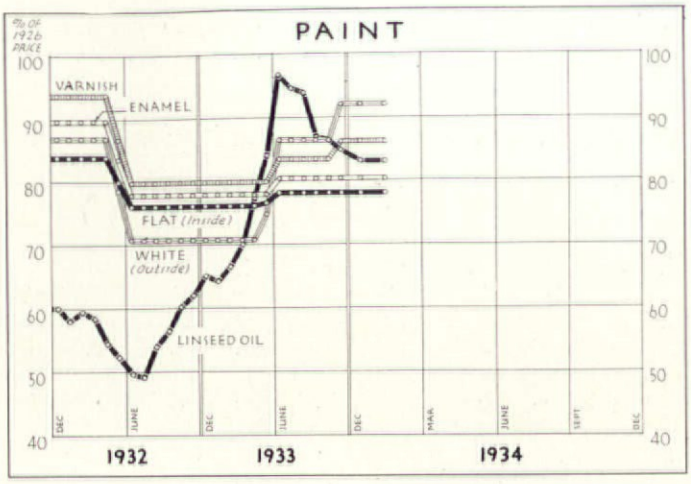


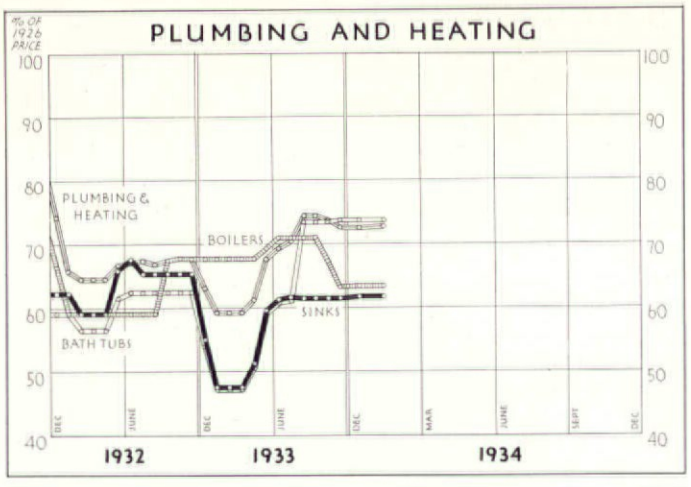


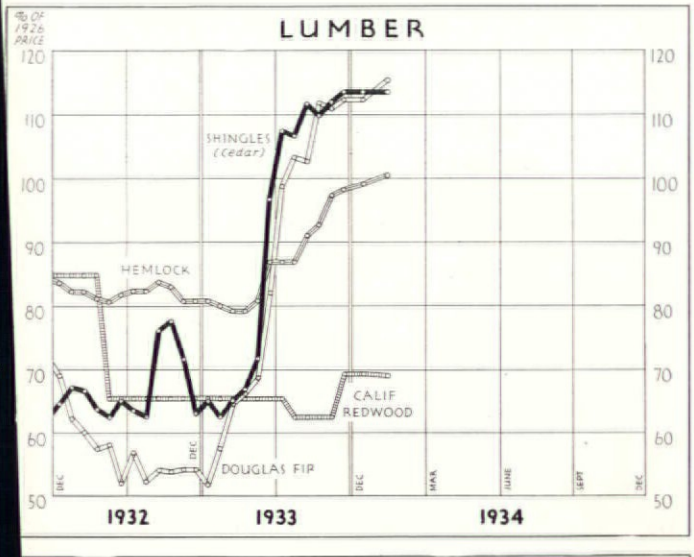
The mortgage investment policies of 28 leading life insurance companies are represented in the above chart, based on 4 week totals from figures compiled by the Wall Street Journal.

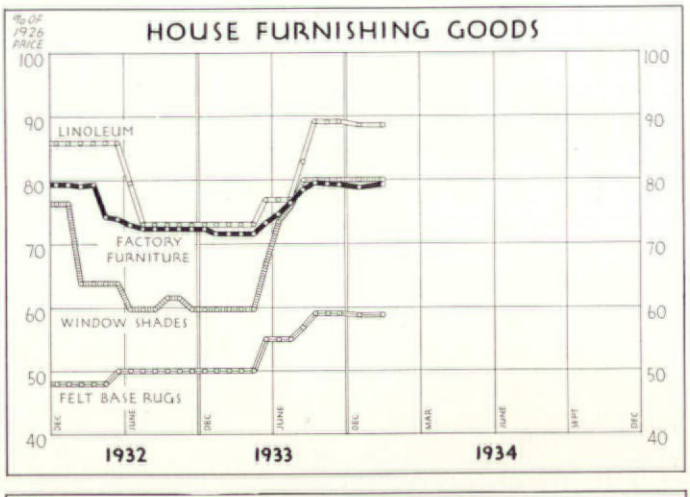
COST OF BUILDING

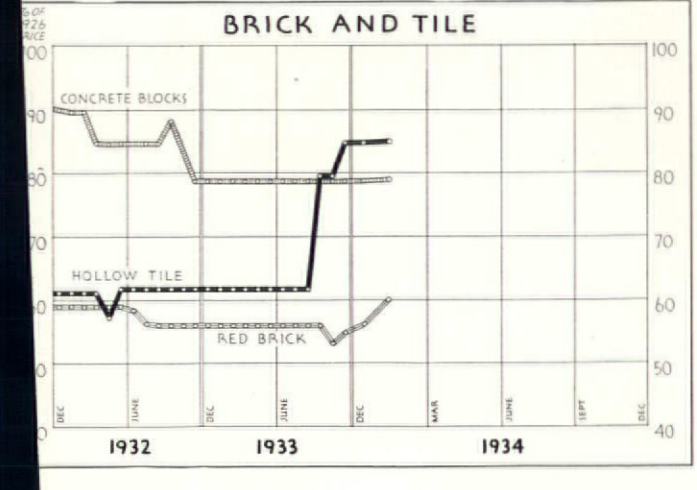


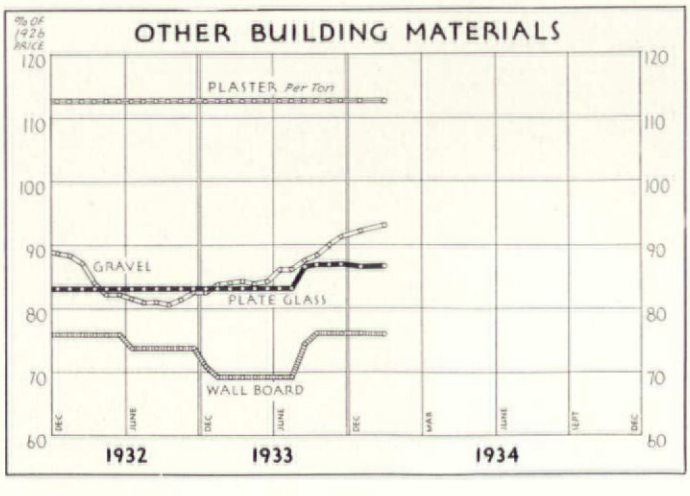












A MISTAKE AT REEDSVILLE

keeps Mrs. Roosevelt's homestead experimenters mum on costs, which fail to "point the way" for private builders.

"I DO not understand how he considers it Communistic to give people a chance to earn their own livings and to buy their own houses. It is a fact that the Government will provide the initial capital, but I hope that many private enterprises will do it, for the Government is simply attempting to point the way. . . . "

Forty-nine of the first 50 houses at Reedsville Experimental Community, in Preston County, West Va., stood completed last month as Mrs. F. D. Roosevelt thus refuted Dr. William A. Wirt's charges that the Reedsville project was a "Communistic effort."

But to anyone in the building game, Reedsville, with its 49 new houses, must have seemed a sorry pointer. No canny builder could have erred as did the Subsistence Homestead Division when it purchased 50 portable houses for the first settlers at Reedsville (THE ARCHITECTURAL FORUM, November, 1933, page 430). Found wholly inadequate, these have been entirely remodeled by Eric Gugler, New York architect in charge of construction.

Architect Gugler used each portable house as a "shell," adding sun rooms, dining alcoves, terraces, porches and arbors. The necessity for remaking the houses naturally ran costs far higher than anyone expected. Guesses as to the average cost of each of the remade houses ran as high as $5,000, as officials at the site refused to disclose the exact figures. The additional 75 houses, planned by Architect Gugler, will probably prove less costly.

Mrs. Roosevelt's model community buzzed last month with tourists, officials and homesteaders. A station agent for the Morgantown & Kingwood Railroad, a branch of the Baltimore & Ohio, has been put back on at Reedsville for the first time in several years. On Easter Sunday 2,500 persons visited the model home, which is the first of three houses of different types to be completely furnished to serve as a guide for the homesteaders in outfitting their homes. All furniture for the Reedsville project has been made locally. Early reports that Mrs. Roosevelt's own furniture factory at Hyde Park, N. Y., would fill the big order have proved unfounded.

Mrs. Roosevelt said last month that several private industries had offered to put up factories at Reedsville, but ever since having been denied its U. S.-financed mail bag lock factory, the West Virginia homestead laboratory has been expanding its farming activities, preparatory to at least a year's existence without benefit of industry. The homesteaders, expecting to enter their new homes sometime this month, were plowing gardens and draining lowland areas for planting under the supervision of experts from the University of West Virginia. Some employment was expected to be available this Summer on Federal road work and in the construction of the remainder of the 125 houses to be built.

By April 11, the Homestead Division at Washington had approved loans totaling $11,291,000 for 35 subsistence homestead units like Reedsville's throughout the U. S., including four not hitherto reported by THE ARCHITECTURAL FORUM: Jasper, Ala., $244,000; Longview, Wash., $160,000; Duluth, Minn., $104,000; and Franklin County, Ill., $550,000.

Right: a re-fabricated house, one of 49 just erected in the subsistence homestead green near Reedsville, West Va. Architect Eric Gugler added a sun porch and some lattice work to the factory-built house, painting it white with green roof and shutters. Below: Mrs. Roosevelt inspects.

Gibs

PWA FUND No. 2

LaFollette wants 10 billion, Ickes 500 million; it may be $1,800,000,000.

APPLICATIONS for $3,400,000,000 are still pending before the Public Works Administration, most of which will be tossed in the administrator's waste basket unless: (1) Congress provides another whopper of a fund before it adjourns, (2) Jesse Jones' RFC is authorized to make loans to municipalities for public works projects.

As for the first possibility, certain it is that Congress will appropriate some money for public works. How much was a question unanswerable until Representatives and Senators had had an opportunity to stage a tug-o-war in committee rooms and on the floor.

Well knowing that no such figure would be granted, insurgent Senator Robert M. LaFollette maintained his reputation for asking much of his government by demanding $10,000,000,000. One provision LaFollette wrote into his bill that many agree should have been part of the first $3,300,000,000 program, the earmarking of funds for specific purposes. Thus his $10,000,000,000 would include:

Highways	$1,850,000,000
More highways under Federal Highway Act	125,000,000
Federal Buildings	175,000,000
HOLC loans for new houses	500,000,000
Federal low cost housing	825,000,000
Non-federal projects, emphasis on schools	5,855,000,000
Civilian Conservation Corps	600,000,000

The bill would bar construction of ships and airplanes, would give the U. S. authority to condemn and acquire property for housing, would lift the 30 per cent grant limitation under the present act.

For LaFollette's proposal Secretary Ickes was understood to have little sympathy. He planned to request only $500,000,000. Those who like to guess on Congressional actions were of the opinion, however, that the sum finally hit upon will be in the neighborhood of $1,800,000,000.

Whatever the sum, there is likely to be some earmarking. Not a few Senators and Representatives who have had reason to be disappointed with Ickes' distribution of the $3,300,000,000 will favor restricting his discretionary powers in the hope that the sewer or the school back home will have better chance of obtaining money.

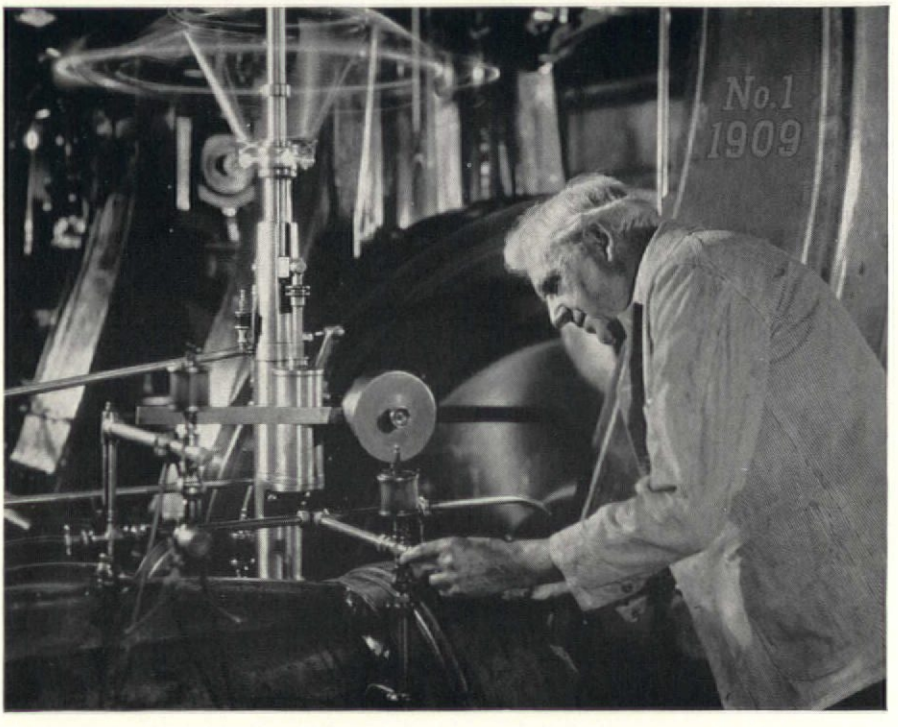
Two active campaigns have been waged for obtaining a sizable share of the money for building: the Producers Council has hammered away at the idea that money spent for building creates the most employment; the National Education Association has sought 10 per cent of whatever money is appropriated for school buildings. Chairman Jesse Jones likes to think of his Reconstruction Finance Corporation as a one-all. Believing that as long as he makes good loans it makes little difference whom he lends to, he readily endorsed the suggestion that RFC might take over the municipal and county lending functions of PWA.

"Money would go further," said Mr. Jones. "There would be no drain on the taxpayer if we used our heads in buying bonds. Only purchases from solvent cities would be considered."

The idea was no more than an idea last month, and whether it would become any more than that depended primarily on what Mr. Roosevelt thought about it, and how large a sum Congress set aside for PWA.

What was much more likely was that the RFC would set up a revolving fund of $300,000,000 to relieve distressed cities. Presumably, after the municipalities had straightened themselves out, they would be able to obtain their own funds for public works through local bond issues.

Meanwhile, Administrator Ickes was playing with the funds from the original $3,300,000,000, rescinding some loans, increasing others, and adding a few new projects to the list. In actual spending he was still moving at a snail's pace. For the fiscal year ending June 3, the President told Congress Public Works outlays would total $1,677,190,800. At the close of business April 13 only $416,773,915 had been paid out.



When is the contract fulfilled?

Legally, when the parties to it have done everything they agreed to do. But the manufacturer whose name on a piece of machinery has stood for quality and dependability for a half century or more, knows that his product must meet an implied obligation long after the technicalities of the contract are forgotten. Year after year it must perform at high efficiency and with low maintenance expense . . . year after year it must provide dependable and trouble-free service . . . year after year, throughout a long life of usefulness it must fulfill the unwritten guarantee which its name carries with it.

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A BANK'S MORTGAGE OFFICER

who has a theory about modernizing foreclosed properties; how it worked in one instance.

NOT the biggest, but the second; not the oldest, but the third, Emigrant Industrial Savings Bank is a power in New York real estate financing. Founded in 1850 to give Irish immigrants a safe place to store their wages, its deposits have moved upward steadily from $3,009 in 1850 to $409,569,643 in 1934, its depositors from 20 to 280,594.

For the past five years another Emigrant figure has been mounting, one that brought no joy to the bank's directors — the number of properties held in foreclosure. In this the Emigrant was not alone, nor was it alone in its indecision at first as to what should be done with them.

Hoguet. On the bank's executive roll is one who has established a reputation among real estate and financial men as one of the city's soundest lenders, as well as one of its most progressive thinkers. It is Robert Louis Hoguet, first vice president and director. Fifty-five years old, with hair as stand-uppish as any Harvard senior's, vice president Hoguet left private law practice in 1923 to join the bank, having been a trustee since 1916. A director on the Niagara Fire Insurance and the Fidelity Fire Insurance companies, as well as an officer of a few realty companies, he directs the bank's real estate activities.

Like the real estate heads of nearly all other banks and insurance companies, his function has altered considerably. Said he to the Real Estate Board of New York last month: "In times like these, a savings bank officer is in the same situation with the actual managers of real estate. He realizes that his mortgages are only as good as the real estate that underlies them, and a large part of his time is given up to the actual management of real estate. We find ourselves owning, managing, or controlling real estate which is not productive because it is obsolete. Our problem is to discover some way out of the difficulty which such real estate presents.

"The first of two alternatives is one of complete inaction coupled with an extraordinary faith in the future. As for the second, I think the answer lies in the direction of modernization and rehabilitation.

Acme

Robert Louis Hoguet

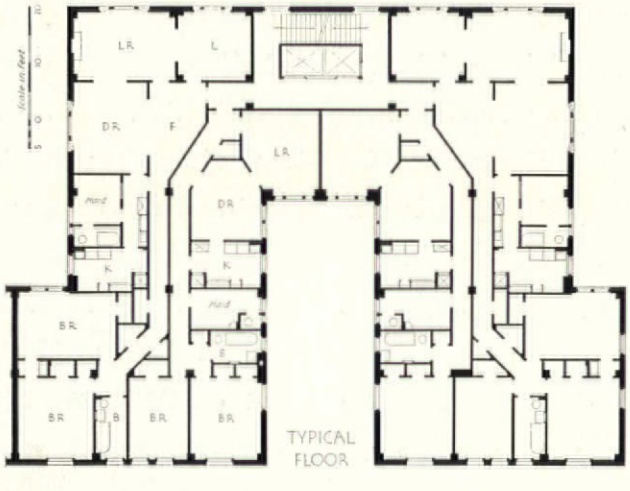
"I am not disposed to wait for increase in demand to provide occupants for real estate that has become obsolete and out of date, for the simple reason that I do not believe we shall see any such demand for long years to come. Starting from this premise, I am driven to the conclusion that obsolete property estate cannot be regarded as having any value whatever beyond the value of the land, and land value today is an item of a very dubious character.

"It being impossible to sell land in the present market, it seems to me that the point of view should be that one can safely afford to overlook the investment that is represented by the land and concern oneself only with the new money, or in other words, with the cost of renovation. *If one believes, after careful investigation, that his renovation will earn an income on the cost of renovation, without regard to the money already in the property, he is economically justified in proceeding with the renovation if the building is structurally sound.*"

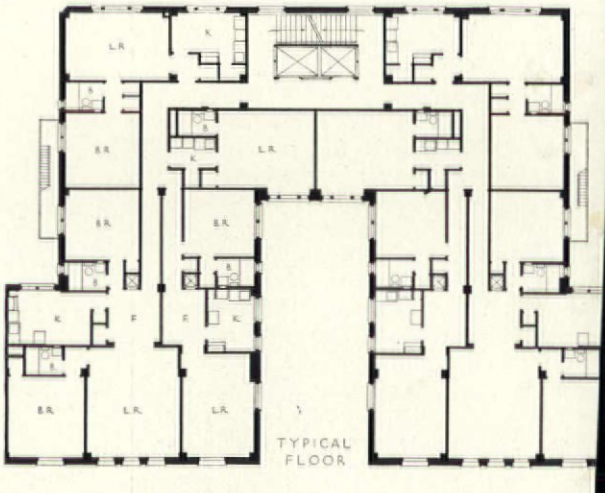
Having fixed his policy, Mr. Hoguet revamped the real estate department to function as a management company. With foreclosed properties growing in number daily, each one demanding specialized immediate attention, good management called for the abandonment of the customary savings bank policy of repainting and cutting the rents to try for an even break.

Architects. About that time the bank moved its Grand Central branch (its only one) to 42nd Street, just off 5th Avenue. Because Emigrant's president Walter H. Bennett had, as a director of the Irving Trust Company, seen Voorhees, Gmelin & Walker at work on the Irving's No. 1 Wall Street building, he chose them to design the branch. So pleased was the bank with the work done by the architects that when it was completed, it seemed logical to Mr. Hoguet that they might fit into his management program. Could they, he wanted to know, relieve his office of deciding what ought to be done with repossessed properties? Could they handle small repair work as well as hundred thousand dollar alterations?

Unlike most offices, Voorhees, Gmelin & Walker has its own mechanical and struc



Before: $32,000 Income



After: $75,000 Income

WESTLAND GREEN VEIN CREAM

Westland Green Vein Cream is taken from the Vermont Marble quarries at West Rutland, Rutland County, in the southern-central section of the state. It is one of the most delicately tinted of all Vermont Marbles, with shimmering traces of pale green, interlaced by emphatic veins of amber, running through a field of coral pink. It is adapted especially to interior use. Architects are invited to write for "Color Plates of Vermont Marble," which shows Westland Green Vein Cream and twenty-two other varieties in full color. Address: Vermont Marble Company, Proctor, Vt.

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NRA WE DO OUR PART

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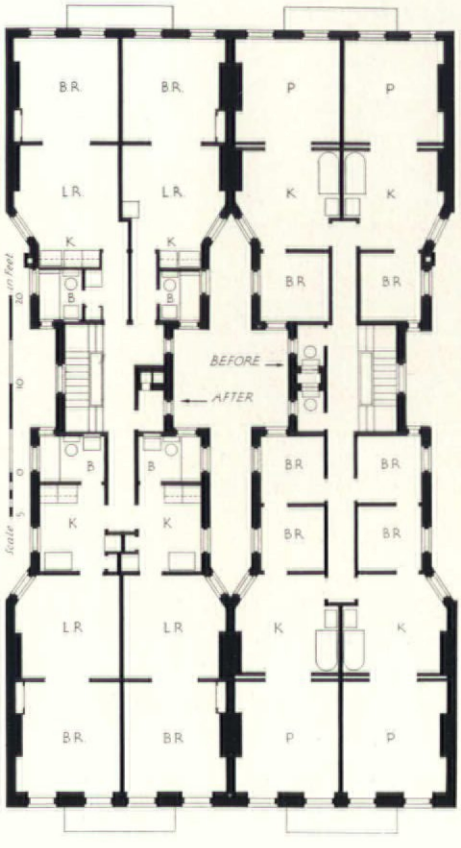
Studly

Down on New York's lower East Side are hundreds of such tenements, scores of which are held in foreclosure by wealthy savings banks. Half-vacant, unsanitary, many await tearing down by the new Housing Authority. In the plan, at right, the right half shows the building before being modernized, with small ill-lighted bedrooms, hall water closets.



Studly

As remodeled by Frederick Keeler, the exterior is cleaned up, its lower stories resurfaced, but the important changes are within, where (see left half of plan) kitchen and bath are placed on the court, bedrooms are placed on the front, an incinerator solves the refuse problem. Remodeling such as this costs about $750 per apartment, and makes money.

tural engineering departments. As consulting architects for the A. T. & T. they had learned the routine of handling odds and ends without loss, but, of course, without profit. They agreed to take over the bank's remodeling work.

Between the bank and the firm of architects the contract calls for a monthly retainer, large enough to average six per cent on the cost of all work, but small enough to effect significant savings for the bank in handling its modernization problems wholesale.

Operation. To Max Foley, able and practical-minded member of the firm's staff, fell the job of servicing the account. When a piece of property falls back on the bank, he with Lloyd Smith, manager under Mr. Foguet of the real estate department, makes a study of the building, its physical condition, the population trends of the neighborhood, other facts essential to knowing whether minor repairs or substantial alteration is the thing to do.

From the study is drawn up an analysis of the property, with proposed changes, estimates of the cost, and probable resulting income. From then on, one of two courses is open to the bank, to remodel the building and attempt to sell, or to find a buyer who will put up 50 per cent of the alteration cost, and assume a mortgage for the rest. For instance, if a property were listed at $100,000, and to modernize it would cost $100,000, the bank supplies $50,000, the buyer $50,000, and a new mortgage is issued for $150,000. Since most property sales are made to builders willing to risk taking over a building in order to keep their organization at work, rarely, if ever, does the buyer actually put up much actual cash. Instead he attempts to borrow out on the job (i.e. to charge himself as builder an excessive cost for the work so that the bank's cash will actually pay for the work). Much of the architects' service to the bank is in finding flaws in the buyer's cost estimate.

Finding a buyer before remodeling has been the more successful way of disposing of the property; but the first stops losses on the property.

Case History. By far the biggest Emigrant customer, in fact the biggest customer of all New York banks, is Metropolitan Realty Holding Corporation, which is actually the real estate adjunct of the firm of Wolff & Rudinger, builders. One of the many buildings they purchased from the Emigrant was an apartment house at 507 West 110th Street, built in the era of 7- and 8-room apartments.

With a mortgage of $315,000, it was listed for sale at $362,319 when Metropolitan Realty Holding Corporation became interested. Foley's survey of the property, followed by preparation of new floor plans and suggested specifications, indicated a required remodeling expenditure of $100,000. Metropolitan bought.

With Robert Swartburg as architects for the purchasers, and Voorhees, Gmelin & Walker acting as consultants, the property was altered along the lines suggested by Foley for $110,000. Exterior changes: the top fixed sash of the casements were removed, the casements were raised and new fascia and sill installed, the building was reroofed. Interior changes: apartments were cut up into 3's, 4's and 5's; lobbies redecorated, new cabs for elevators, usable floors repaired, new wood floors installed where needed, complete new hardware, new tile floors and wainscots in bathrooms, new lighting fixtures, switches and receptacles, brass piping installed, incinerator built in, boiler repaired, plastering repaired, and all apartments painted.

Result: From 55 per cent occupancy and a gross income of $32,000, the building jumped within two months to 100 per cent occupancy and $75,000 gross income. Terms of the new $472,319 mortgage are:

3½ per cent to Jan. 31, 1936
4 per cent to Jan. 31, 1938
4½ per cent to Jan. 31, 1940
5 per cent to Feb. 1, 1944

Payable quarterly, there is amortization of $2,361.59 every interest date from Jan. 1, 1935 to expiration, Feb. 1, 1944.

Late last month Metropolitan felt so good about its success with the building that it purchased a similar house next door from the bank, planned to do exactly the same thing with it.

Tenements. For lower East Side properties, which the bank holds in quantity, alterations are seldom so complete. Before the advent of Voorhees, Gmelin & Walker, many were altered by remodeling specialist Frederick Keeler, who knows how to get maximum visible results for a minimum amount of money. Touching up the exteriors only enough to let passers-by know the building has been modernized he does his best work in converting dark "dumbbell" and "railroad" flats into livable three- and four-room units. (See above.)

A TAX RESCUE

is performed by NAREB anent personal holding companies.

TRADE associations that know what's good for their members have been keeping a constant finger on Washington's pulse for the last twelve months. But none has been in more constant attendance than the National Association of Real Estate Boards. Only at the last minute did it get for real estate developers and home builders a stay from being included in the construction industry code; and last month it just about pulled from the fire a measure which it believed would be "detrimental and even ruinous to real estate corporation and to the business of real estate."

In Sections 102 and 117 of the Revenue Act of 1934, dealing with penalty taxes on personal holding companies, lay a provision making rental income taxable. The language of the sections, designed to nip tax dodgers, would have forced real estate corporations to pay the personal holding company tax in addition to their regular income tax. This, so president Hugh Potter, J. C. Nichols of Kansas City, and A. C. Houghton of Washington told the Senate Finance Committee, would have amounted to almost a 50 per cent income tax.

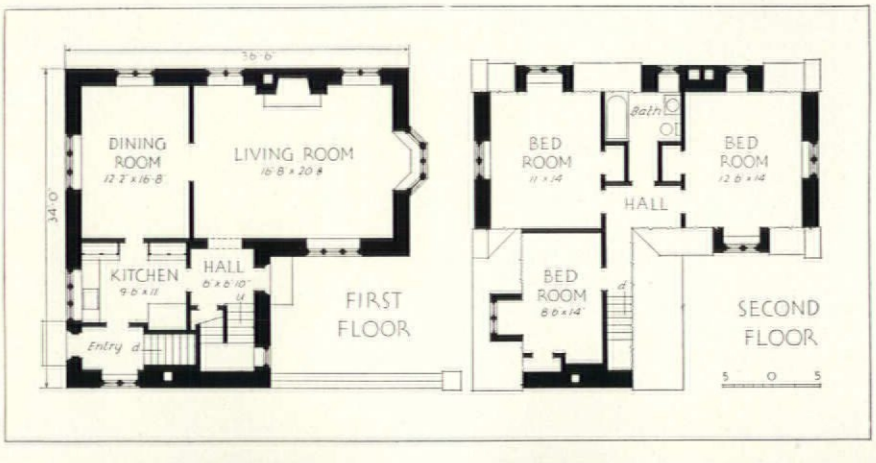
In the bill reported out of committee to the Senate the provisions were stricken out. Whether the Senate would pass it, and whether the House would amend its act accordingly were still undecided though probable last month.

FOUR COSTUMES

and their costs for a prize-winning house plan.

EXCEPT in Pennsylvania where field stone is cheap and abundant, few small houses are built of stone. The 8,000 committees of Better Homes in America were disappointed, consequently, when this year's gold medal was awarded for a stone house on a swank Long Island Estate. (See page 5.) Could it, they asked, be built of brick, of wood frame and stucco, of wood? And how much would it cost?

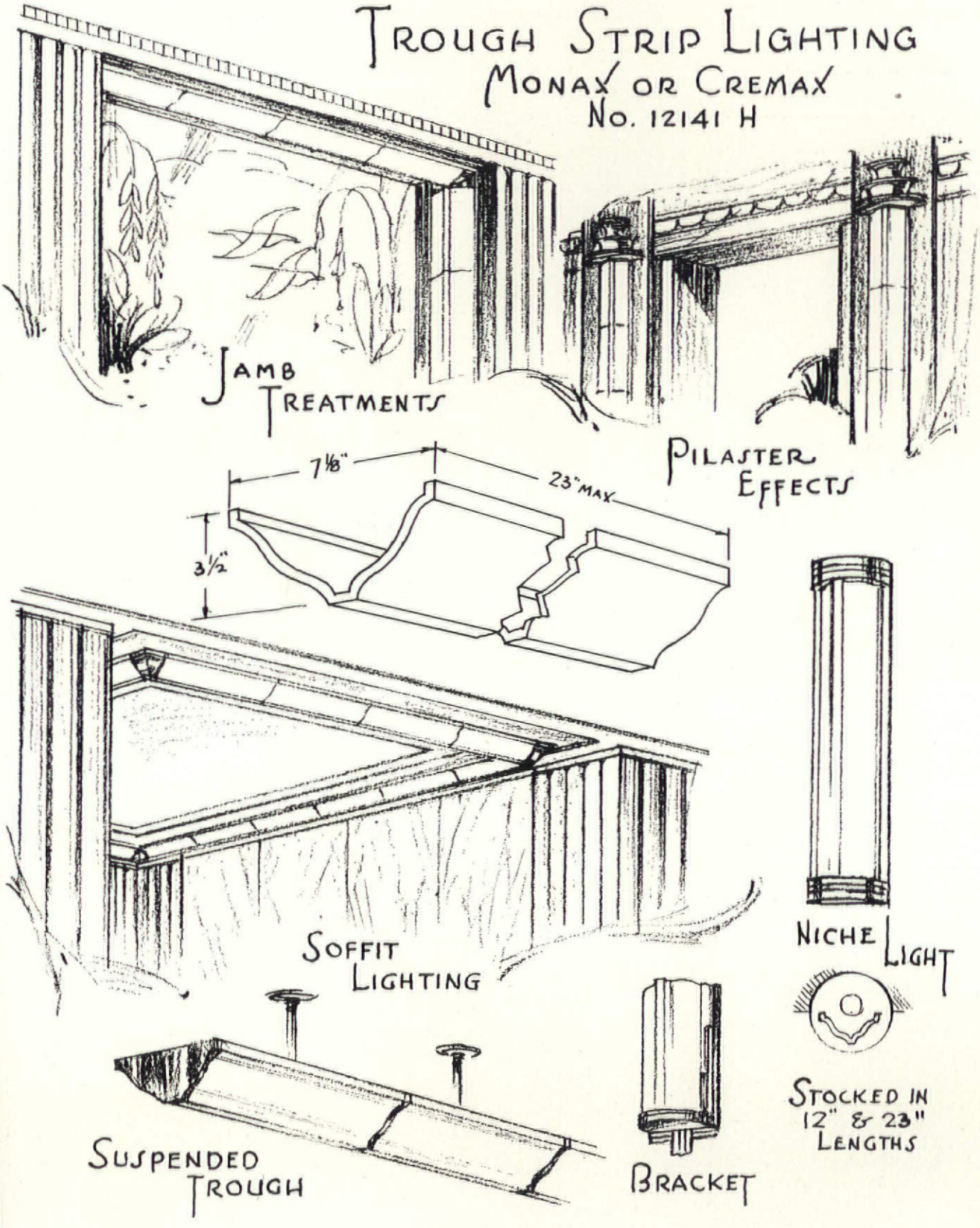
To answer their questions the medal-winning architect Roger H. Bullard repeated the design in three alternate materials, with the result shown below. Since building costs vary more than climates, estimates of the cost variation for the New York area would mean little in Houston, Texas. But built on the same site at Glen Head, Long Island, this Spring, the probable costs on all four materials would be: stone (local stone and not limestone as used in the original house) $10,200; brick veneer, $9,600; wood frame and stucco, $9,130; in wood, $8,650. Its cubage: 26,000 cu. ft.



One plan, four houses. Roger Bullard's prize-winning house in clapboard, above, for $8,650, in local stone, below, for $10,200.

In stucco and half timber, above, Bullard's house would cost about $9,130 on Long Island; and in brick, below, about $9,600.

TROUGH STRIP LIGHTING
MONAX OR CREMAX
No. 12141 H



COMPLETE DESIGNER'S HANDBOOK ON REQUEST

Macbeth-Evans Glass Company.
Charleroi, Pa.

EARNINGS

POSSIBLY those who stand to benefit quickest from a national renovize campaign are the paint manufacturers. Mighty among these is National Lead. Its earnings for the first quarter of 1934 were reported last month by Edward J. Cornish, board chairman, at between $500,000 and $600,000, which compares with a loss of $250,000 in the same period of 1933.

Other first quarter reports:

(000's omitted; D=deficit)

	1934	*1933*
General Electric	$4,566	$2,838
Johns-Manville	76 D	953 D
Libbey-Owens-Ford	1,370	623

• • •

"Plate and window glass sales are beginning to feel the effect of greater activity in the building field," said John D. Biggers, president of Libbey-Owens-Ford (see above), proud to announce that LOF's payrolls were $1,979,389 for the first quarter this year as compared with $898,934 last year. A wage increase of 10 per cent for 5,000 employes of the Crane Co. was news last month. Crane's earnings report for 1933 showed a loss of $1,874,823, as compared with a loss of $7,536,868 in 1932. Most cheering note of the month, however, was word that Crane's business is currently running around 75 per cent over a year ago. American Radiator reported that its losses in the first two months of 1934 were very small as compared with those of the same period last year.

• • •

The Briggs Manufacturing Co. (1933: $1,591,425; 1932: $1,896,422 D) makes automobile bodies chiefly, but it has recently diversified its activities by making refrigerator cabinets, steel-enameled plumbingware, steel furniture. Another well-known auto body parts maker, the Mullins Manufacturing Co. (First quarter, 1934: $80,539; same period, 1933: $54,476D) now manufactures monel metal sinks for International Nickel, supplies tubs to nearly 75 per cent of the washing machine industry. Largest manufacturer in the world of fire alarm signal systems is the Gamewell Co., whose first quarter losses exceeded those of last year. To reduce its dependence for business on municipalities the company has very recently perfected a device for fire protection of homes, hospitals and apartment houses. In mid-1933 it reported increased sales of its automatic sprinkler systems.

• • •

A substantial part of Allied Chemical & Dye's net income (1933: $14,000,000) may be attributed to the sale of Barrett asphalt roofing and kindred products.

Some other roofing company reports:

(000's omitted; D=deficit)

	1933	*1932*
Flintkote	$314	$1,712 D
General Asphalt	218 D	621 D
U. S. Gypsum	1,738	1,599

• • •

More reports:

(000's omitted; D=deficit)

	1933	*1932*
Aluminum Co. of America	$1,664	$2,172
Carrier Corp.	673 D	396 D
Eagle-Picher Lead	647	805 D
Ferro-Enamel Corp.	135	2 D
Long-Bell	3,685 D	5,018 D
National Tile	196 D	228 D
Starrett Corp.	106 D	154 D
Thompson Starrett	133	5
U. S. Radiator	885 D	1,543 D
Universal Pipe & Radiator	594 D	1,204 D
Yale & Towne	36	780 D

BETTER HOMES, INC.

is organized by ex-Sears men to share in Cleveland renovizing.

VISUALIZING a national set-up for the future, a former district manager of the home construction division which Sears, Roebuck & Co. is liquidating (THE ARCHITECTURAL FORUM, December, page 513) headed a new organization called Better Homes, Inc., in Cleveland last month. Better Homes, Inc., it was announced, would tie in with Cleveland's renovize campaign by helping to sell the renovize idea and by providing funds for renovizing. Most of Better Homes' staff of ten salesmen were old Sears men.

Behind Better Homes was the Weiler-Wilhelm Lumber Co., Cleveland jobbers for Johns-Manville and Crane products. Combining some Cleveland capital with the available financing plans of both of these manufacturers, the new company was able to advertise 6 per cent loans for modernizing. It hoped later to be able to lend for complete construction jobs.

Speaking of "three wealthy men" as his local backers, Better Homes' plump president, A. C. Van den Bossche, last month described his aim to aid those "who wish to renovize or alter buildings but need exact information as to how to proceed to get it done"; told how he planned eventually to extend his "Complete Building Service" throughout northeastern Ohio and the Middle West.

Born 36 years ago in Belgium, the son of a dealer in horses, his first job was that of carpenter during a World's Fair in Ghent. He came to the United States to earn his fortune as a jockey, but drifted to Chicago, and in 1913 found a job there as carpenter with the Harris Brothers Co.

Later Mr. Van den Bossche was employed by Montgomery Ward & Co. as a building materials estimator, and as salesman in charge of a model bungalow that had been built in the store.

Next came a job with Sears, Roebuck & Co. as estimator. After training in every department of the building materials division, he became assistant manager of the portable house display bungalow at Independence Blvd. and Arthington Ave. in Chicago. In 1923 Sears sent him to Cleveland to superintend its first home construction job division. He remained as regional supervisor in charge of the major offices in Cleveland, Detroit and Columbus, and of 21 sub-offices.

Silverberg

Cleveland's Van den Bossche

Columnist Forbes Decries the Lack of a Building Napoleon.

SQUARE-SPOKEN B. C. Forbes' column (on every Hearst-paper's financial page) bulged with capital letters last month.

"America," wrote Mr. Forbes, "has had its Automobile King, Henry Ford; its Oil King, John D. Rockefeller; . . . its Chain Store King, Frank W. Woolworth; its Mail Order King, Julius Rosenwald; its Chewing Gum King, William Wrigley, Jr. . . .

"Americans need today another colossus, a super-man capable of giving every city and town and community in America attractive modern homes at lower prices than heretofore. . . .

"The demand, the need, the desire is not for rows upon rows of repellently uniform houses in every community throughout the length and breadth of the land.

"The ideal Building Napoleon would establish branches at strategic points all over the continent, man them by staffs capable of erecting a wide variety of pleasing homes at unprecedentedly moderate cost. The financing could be arranged, wherever necessary, by the Building Napoleon's towering organization."

Let *Brunswick* experts interpret your designs

•

Before you decide upon any style of tavern service fixtures, call in Brunswick. Let the experts of our highly trained specialty organization check your specifications. If we can make any suggestions for improving the efficiency of the service, we will gladly offer them to you. This service is offered without obligation.

Brunswick architectural service includes much more than the ability to faithfully reproduce your blue prints. Our craftsmen are masters at catching and interpreting the spirit of your designs as well as your specifications.

Also, Brunswick's unequaled facilities for building special fixtures—everything from bare walls to paneled richness if desired—give unlimited scope to your creative ability. Branches and distributors in principal cities assure prompt service. Write today for latest information on Brunswick service fixtures—also for data on Billiard Tables, Bowling Alleys, toilet seats and Squash Courts.

MICHELOB TAVERN, 166 NO. STATE ST., CHICAGO, ILL. Architect, Frederick Stanton. The Brunswick Planning Bureau together with the architect, Mr. Frederick Stanton, Chicago, are responsible for this quaint old-time tavern. 50 ft. front counter of chestnut wood. 40 ft. back counter to match, coil boxes, step display sections, combination liquor and cigar case, wainscoting of chestnut wood for walls and ceiling—ceiling beams, settee booths, 7 ft. built-in ice box, etc., etc.

(*Left*)—LOUIS SHERRY, INC., NEW YORK CITY, NEW YORK. Designed by the Architectural Department of the New York Branch. For sheer refinement, there are few Brunswick installations to excel this one. 13 ft. front counter, 12 ft. back counter and mirrored top frame. The decorative scheme is in red enamel and black with gold overlays, as noted on front counter and top frame.

THE BRUNSWICK · BALKE · COLLENDER CO.

General Offices: 623-33 S. Wabash Ave., Chicago, Ill. • Branches and Distributors in Principal Cities of the United States

SEEKERS OF AIR...

Ewing Galloway

When perspiring city dwellers leave baking pavements and apartments behind...and swarm on the breeze-swept beach...they pay an eloquent testimonial to the importance of comfortable air in modern life. ¶ For 70 years Sturtevant has striven to make comfortable, healthful air conveniently accessible...and certain...regardless of the whims of the weather or the accident of location. ¶ Today, at the push of a button, you can instantly enjoy the cool of the mountains in August or the balmy warmth of Miami in February ...thanks to Sturtevant research and equipment.

B. F. Sturtevant Co., Hyde Park, Boston, Mass.

Sturtevant

REG U.S. PAT. OFF.

VENTILATING · HEATING · AIR CONDITIONING EQUIPMENT

NATIONAL
COPPER-STEEL
RUST-RESISTING PIPE

for soil, waste, vent lines, rain leaders and steam returns

No matter what type of building, the modern architect and engineer look to the durability of the equipment to hold down maintenance costs. Pipe, especially, plays an important part when not only repairs or replacements, but also possible interruptions to service are considered. This is why NATIONAL Copper-Steel Pipe is being increasingly used for soil, waste, vent lines, rain leaders, and steam returns in the modern industrial building. Those responsible know that copper-steel pipe lasts longer where atmospheric corrosion or certain alternate wet and dry conditons prevail. Numerous tests and extensive installations by leading users the country over have again and again confirmed this fact. And remember, you don't have to pay a high premium for copper-steel—just a trifle over regular pipe; yet you are assured of rust resistance not surpassed by any ferrous material within a justifiable price range. Take advantage of this economy and specify NATIONAL—*The Original Copper-Steel Pipe* (Made since 1911).

LOOK FOR THE GREEN COLOR—National Copper-Steel Pipe is marked as follows: Black Pipe—Smaller sizes colored green. Larger sizes, two green stripes running lengthwise. Galvanized Pipe—All sizes, two green stripes running lengthwise.

NATIONAL TUBE COMPANY · Pittsburgh, Pa.

Subsidiary of United States Steel Corporation

If Jefferson had had MODERN CONCRETE

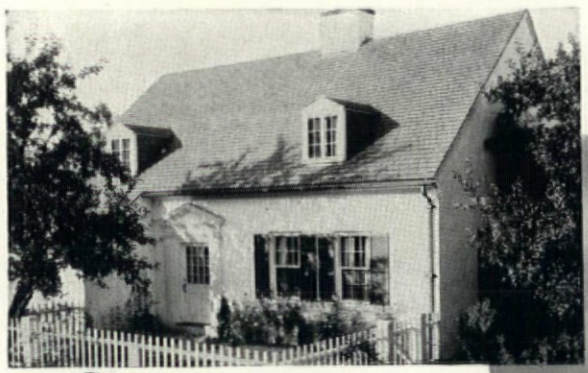
Master though he was, the builder of Monticello was often limited by his materials, rather than aided. What might Jefferson . . . Bullfinch . . . Hallet or scores of other great architects of the past have done had they had concrete to work with.

For concrete liberates design rather than restricts it. Any surface texture, any color, any composition of masses is possible with concrete. Thus concrete is adaptable to any architectural style—to the charm of the traditional New England cottage, the classic dignity of Jefferson's design, the bold simplification of the modern.

And to its architectural fitness, concrete adds qualities available in no other way . . . It is fireproof . . . permanent . . . low in upkeep . . . rigid . . . weather-tight . . . proof against termites . . . economical.

Here, concrete fits into the New England tradition. A Cape Cod Cottage built of concrete masonry with a simple coat of portland cement paint. It was so admired that its architect received three more commissions for similar homes.

Here's a Home, for instance, in which concrete inspired the design itself . . . simple . . . no imitations. It's of concrete masonry, coated with portland cement stucco. *And it takes the lowest insurance rate of any residence in the State* . . . that's worth remembering!



Above—A Cape Cod Cottage in Lexington, Mass. Built of concrete masonry. Architect: C. M. Willis.

At Right—Built of concrete by the Omaha Junior Chamber of Commerce. Architect: R. J. Hennig.

For evidence on the adaptability of concrete to the architect's need the complete story of the Omaha home illustrated above is containe in our new 16-page illustrated booklet "Home At Last". A copy yours for the asking.

PORTLAND CEMENT ASSOCIATIO

ROOM 275—33 WEST GRAND AVENUE, CHICAGO, ILLINOI

THE

FORUM OF EVENTS

(Continued)

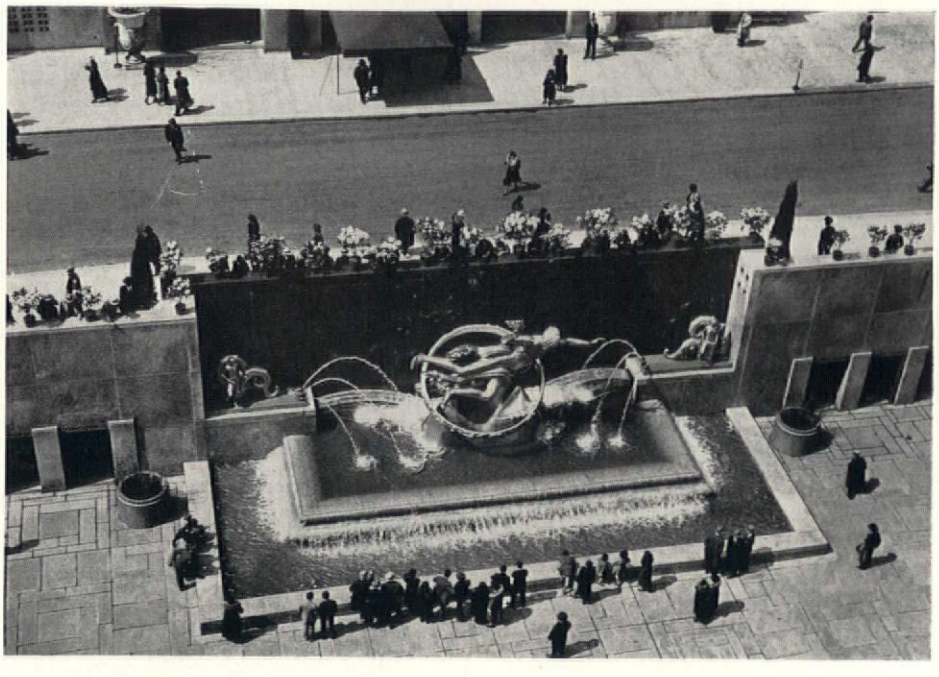
SELECTING N. Y. HOUSERS

LATE in March, Langdon W. Post, chairman of the New York City Housing Authority, requested architects' organizations of New York and Brooklyn to formulate a joint recommendation for procedures involved in clearing and rebuilding New York's slums, and for selection of architects to do the work. A fortnight later Mr. Post received and accepted their proposal. Its provisions:

1. The Authority will send a questionnaire to every registered architect in New York City, returnable in seven days. Answers to this will form the basis of selection of architects.
2. To be eligible for selection, architects must give evidence of competence to execute a building project in all its details.
3. From the selected list of qualified architects as determined by the questionnaire, the Authority will select architects to act as directors of the several projects.
4. Project directors acting as an executive committee will develop, subject to the approval of the Housing Authority, uniform practices and procedures for the use of all architects engaged in the projects and will act as coordinators of the program.
5. Compensation of project directors will be a charge against the fees of architects commissioned to execute units of the projects as explained in paragraph six.
6. The architects for the units comprising the projects will be selected by a competition among those qualified by the questionnaire. One competition will be held for the selection of from twenty to thirty architects, depending on the likely number of units.
7. The architects thus selected will form a pool of technical competence from which the Authority will assign individuals to the developments of specific units within each project. Project groups thus formed, acting under the guidance of the project directors, will then develop the general plan of each project and later individually their own particular units.
8. In selecting architects, a procedure will be established by the Authority to assure employment on these projects of as many architects as is consistent with efficiency. These restrictions will be formulated by the Technical Director and the executive committee of project directors for the approval of the authority.

Such a plan may suggest to other authorities in the United States similar methods of attack but suited to the particular needs and economic conditions of their region.

Some architects suggested a salary basis other than commission, the authority to pay draftsmen and all overhead direct.



The latest addition to Rockefeller Plaza is this figure by Paul Manship, of Prometheus stealing fire from heaven. Like MacMonnies' Civic Virtue for New York's City Hall Park, it is the butt of local wit and criticism both on the spot and in the press

MODELED AMERICANA

THE ill wind that blew unemployment into the profession carried with it a revival of interest in American architectural history. The PWA Survey of Historic Buildings was one prime result. Another was that from an anonymous donor the Museum of the City of New York has just received four skillfully constructed models of early New York buildings: Federal Hall, Fraunces Tavern, St. John's Chapel and Hamilton Grange, all of them made by unemployed architects. Their work was financed by the Architects' Emergency Committee with funds raised by public subscription.

The models are faithful to accuracy in the minutest detail both as to form and color, and great care was exercised in such details as brick and stone courses, cornices, and columns with ornamental capitals.

WHISTLER'S MOTHER

AFTER a feverish summer at the Century of Progress and an extended winter tour of eleven other American cities, Whistler's famous painting will soon be leaving our shores, Paris-bound for the 100th anniversary of the artist's birth. Probably two million people saw the work during the past year and a half, so that *The New Yorker* drew a hearty chuckle when it ran a drawing of a rural citizen in the front hall of the Chicago Art Institute asking for Hitler's Mother! And now comes a U. S. stamp issue using the picture, a sign of Federal approval. A last glimpse may be had at the Museum of Modern Art, New York City, where the painting will be on exhibition for two days before it sails on May 19.

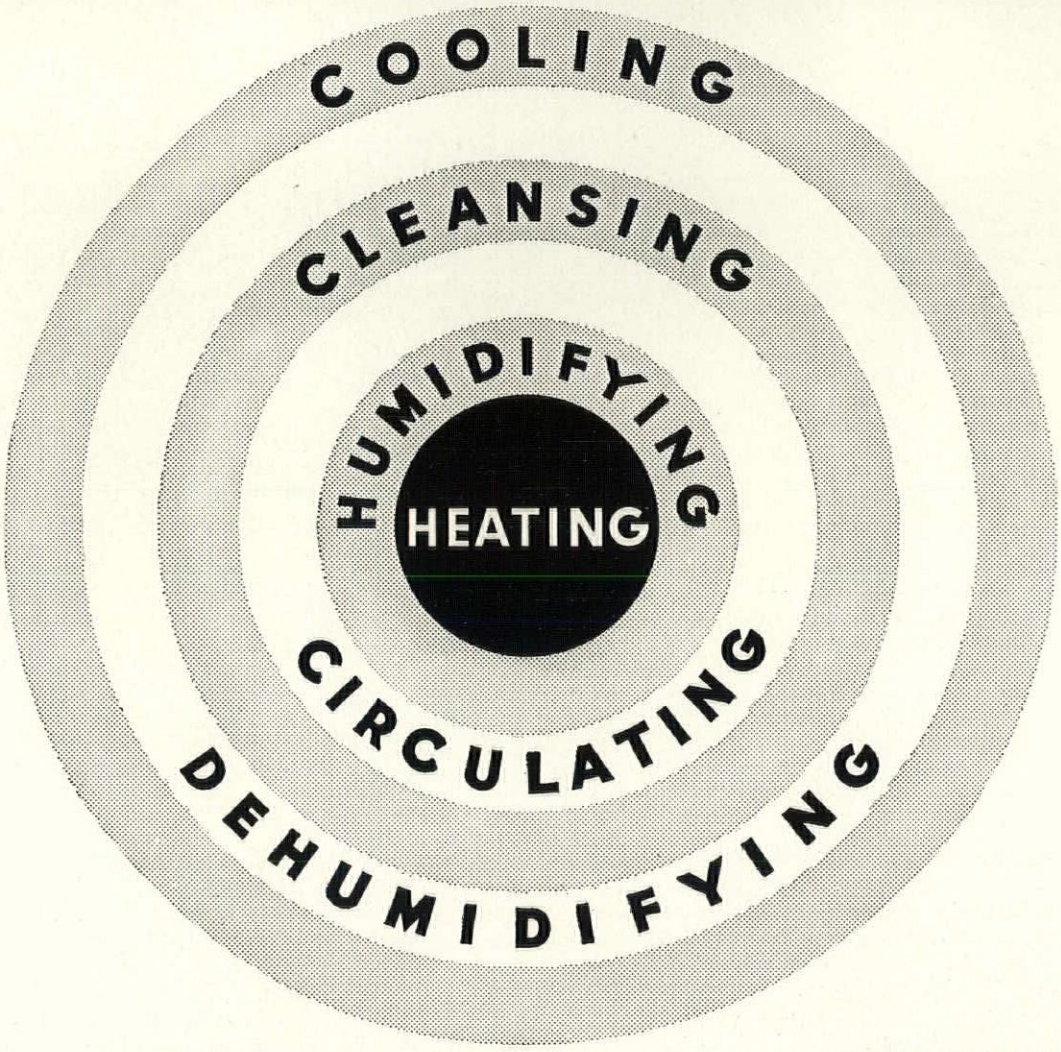
NEW LAND FOR LONDON

CHICAGO once reversed her river's flow and more recently straightened a large bend to make room for broad Wacker Drive and commercial buildings. More conservatively inclined, London will not turn the Thames around. But a scheme offered by the architect, William Walcot, calls for ironing out the Thames from Greenwich to Battersea, thus creating a strip of land 900 ft. wide and three and a half miles long running through the very heart of the city. The plan would deepen, widen and extend the present old Surry commercial canal, already going a considerable fraction of the distance directly toward Battersea. Mr. Walcot contends that the reclaimed land will be valuable enough for building purposes to offset the huge cost of the undertaking.

PREFABRICATION

HIGH up on the 62nd floor of Rockefeller Center a prefabricated house designed by Robert W. McLaughlin Jr. of American Houses, Inc. (THE ARCHITECTURAL FORUM, April, pp. 277–282) made its Manhattan début during April, as part of the Industrial Arts Exposition. Lord & Taylor supplied suitable interior furnishings. Following the plans of Armistead FitzHugh, *House Beautiful-Home and Field* executed a garden to match this American version of the International Style. Because of space limitations, a week-end type, with three rooms, was shown. Since the World's Fair of last summer, this is the first opportunity given the general public to see whether prefabrication has made any progress in design and use of materials.

IN AIR-CONDITIONING



THE CENTER OF THE TARGET IS HEATING

● Basic to the success of any residential air-conditioning system is the dependability of the heating plant and the right choice of a fuel.

The heart of a BRYANT Controlled Air System is the famous and fully-proved Bryant Warm Air Furnace which burns Gas. Gas is the logical fuel for air-conditioning because it is both the cleanest of all fuels and the fuel most accurately responsive to mechanical control.

"Let the Bryant Pup be your furnace man and your weather man, too."

Bryant Heating Plants are both gas-burning and gas-actuated and hence are independent of all other services.

WHY START A FIGHT?

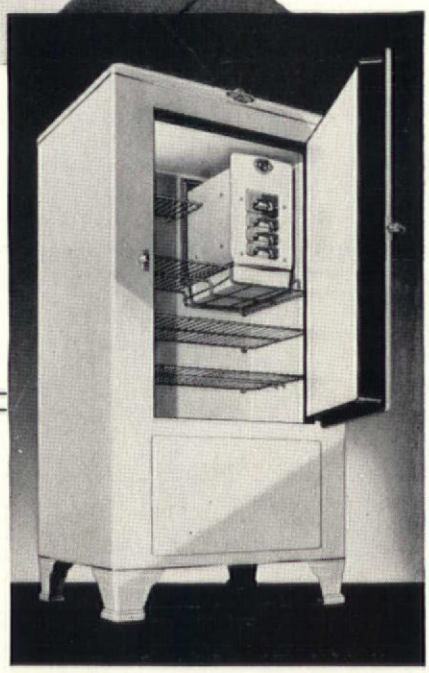
The filter in an average air-conditioning system has a plentiful load to handle. *Why put it into needless competition with its furnace?* • To install a dirt-generating heating plant in an air-conditioning system is like scattering ashes on the living room carpet before using the vacuum cleaner. • Gas . . the clean fuel . . is the one completely logical fuel for the furnace in an air-conditioning system. BRYANT Air-Conditioning Systems are gas-designed.

THE BRYANT HEATER COMPANY

17835 ST. CLAIR AVENUE • • • CLEVELAND, OHI

"I HEAR THAT OVER 4500 NEW YORK APARTMENT BUILDINGS ARE NOW EQUIPPED WITH ELECTROLUX!"

"NO WONDER! THIS MODERN GAS REFRIGERATOR GIVES BOTH OWNERS AND TENANTS MORE!"



YOU GAIN	TENANTS GAIN
1. *No moving parts to wear*	1. *Low operating cost*
2. *Long life*	2. *Permanent silence*
3. *Gas company service*	3. *Every modern convenience*

THERE'S no *secret* to the popularity of Electrolux—in New York as well as the country over! This modern gas refrigerator offers owners and operators—offers their tenants and prospective tenants—a finer, more dependable refrigerator than ever before developed.

Electrolux has no moving parts to wear—cause refrigeration complaints and interrupted service. It's silent, quiet! Naturally and permanently silent. Absence of moving parts means there's nothing about *this* refrigerator to cause noise or become noisy.

And consider this: your own gas company stands ready to serve you promptly and efficiently should Electrolux ever require adjustment.

These advantages are as important to *your tenants* as they are to you! But they're not the only things about Electrolux that appeal. Tenants appreciate, too, the low operating cost of this modern gas refrigerator . . . its many worthwhile modern conveniences.

Before buying *any* refrigerator for your buildings, it will pay you to investigate Electrolux thoroughly. More owners and operators every month are choosing it for properties undergoing modernization.

For full information, see your gas company. Or write direct to Electrolux Refrigerator Sales, Inc., Evansville, Ind.

USES NO WATER

Air-Cooled ELECTROLUX THE SERVEL *Gas* REFRIGERATOR

THE FORUM OF EVENTS

(Continued)

COMPETITIONS

THREE types of bars — de luxe, commercial and service — are included in a new design competition sponsored by the Brunswick-Balke-Collender Co. Conducted under the rules of the American Institute of Architects, it is open to architects, draftsmen, artists and interior decorators.

Each division in the competition will have separate first, second, third, and mention awards. One hundred and seventeen prizes ranging from $25 to $500 total $5,000. A jury composed of one member of the Brunswick-Balke-Collender organization, one or two staff members of prominent hotels, several leading architects and artists will judge the designs. Entirely free from mechanical or technical details, the problem is one of design, color, and arrangement.

Applications for the program should be made in writing before June 1 to Angelo R. Clas, Professional Adviser, 333 North Michigan Avenue, Chicago, Ill. Collaborating entrants should state the name and address to whom the program and notice of award should be sent. All competitors should indicate which division or divisions they are entering, for they are eligible for competition and award in each. Judging will commence immediately after the close of the competition on July 2.

• • •

Three prizes of $200, $100 and $50 respectively are offered by The Architectural Division of the Quarry Tile Industry to the winners of an architectural competition for post office lobby design. All architects and draftsmen not associated with the industry are eligible. Drawings should be mailed not later than June 15. The jury of five architects will be announced later. Program and further information may be obtained from Carl P. Dumbolton, Architectural Director, Quarry Tile Industry, 600 Investment Bldg., Washington, D. C.

• • •

Attention is again called to the competition of The Flat Glass Industry for the design of a detached house. Twenty-nine awards totaling $3,100 are thus divided: first $1,000, second $500, third $250, fourth $100, 25 mentions, each $50.

Open to the entire profession, the competition provides an opportunity to keep abreast of all recent advances and improvements in the form and quality of glass as a building material. Entries will be judged by a jury composed of: David Adler, Wm. Pope Barney, Otto R. Eggers, Louis La Beaume, J. Lovell Little, Louis Stevens, David J. Witmer. The closing date is June 4. The rules of the American Institute of Architects apply. Reprints of the program may be obtained from THE ARCHITECTURAL FORUM.

COLONIAL FOR MOSCOW

THE new American embassy in Moscow will stand on a 300-foot elevation above the Moscow River, on a fifteen-acre plot leased to the United States for 99 years. Feeling that we should be represented by a truly American style, the Administration through the State Department selected Harrie T. Lindeberg to be architect, to whom eighteenth century Colonial American architecture has been a favorite study for many years.

"This school of architecture," he has said, "is the best we have done in homes in this country. If we can get the effect of those fine buildings at the University of Virginia and William and Mary College, we will be satisfied." Lindeberg likes to think of it as a "humble style."

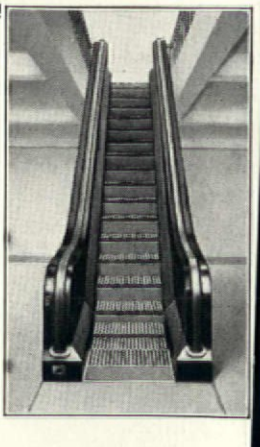
Lying four miles out of Moscow, the site will include a considerable ménage: the residence of the ambassador, accommodations for his chief aides, a small hospital, a schoolhouse for children of American officials, and an independent water supply, works and sewage plant. Though hindered by short working seasons, construction should be finished in the autumn of 1934, according to the architect.

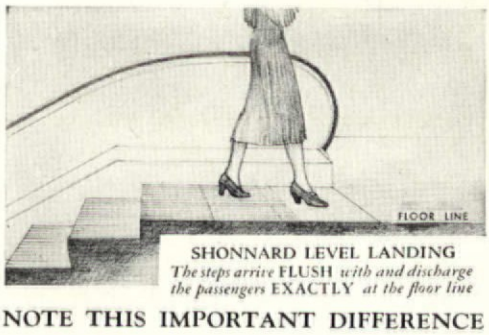
On and Off with a NATURAL Stride

No Slowing Down of Traffic When Passengers Ride on

LEVEL LANDING

SHONNARD MOTOR STAIRWAYS





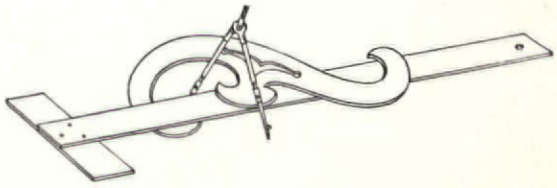
SHONNARD LEVEL LANDING
The steps arrive FLUSH *with and discharge the passengers* EXACTLY *at the floor line*

NOTE THIS IMPORTANT DIFFERENCE

THESE stairways set a new pace in engineering design by making it possible to move traffic on and off without the need for a cautious "step up" or "step down." By speeding passenger movement, the capacity of the stairway is increased per unit of floor space. Operation is easily and safely accomplished at all speeds within the escalator code limit of 125 feet per minute. In tests made by architects and engineers it was demonstrated that the passenger could even board and leave the stairway *backwards* without the slightest difficulty due to the level landing feature. . . . Shonnard Motor Stairways are "slenderized" to save valuable floor space without departing from standard widths for steps.

We invite correspondence, or if convenient, a demonstration at our address below

PETER CLARK, INC. *Manufacturers Established 1905* 540 WEST 30th ST., NEW YORK



Here's one floor material that never ties your hands

No design is too complex or too intricate for rendering in Armstrong's Linoleum!

In the Illinois Host Building at the "Century of Progress" this fine mosaic floor of Armstrong's Linoleum showed hardly any wear after months of heavy traffic. C. Herrick Hammond, F.A.I.A., Supervising Architect

A PALETTE of thirty-seven colors in plains, jaspés, and marbelles! *That's* yours to work with in creating distinctive floors of Armstrong's Linoleum!

This versatile floor material not only gives you unlimited freedom in achieving original designs, but offers scores of rich inlaid patterns from which to choose effective floor treatments.

And consider this: Clients appreciate the durability of good linoleum. It wears and wears and never shows it! Millions of Century of Progress visitors tramped across the Armstrong Floor pictured here with no visible effect upon it!

Armstrong Floors are quickly laid for permanent duty. They clean easily . . . save time and money. And their resilience assures comfort and quiet.

Our Bureau of Interior Decoration will gladly help you plan floors and color schemes.

We'll also be glad to send you the names of qualified floor contractors. Armstrong Cork Co., Floor Division, 1203 State Street, Lancaster, Pennsylvania.

See Sweet's Catalogues for colorplates and details.

Armstrong's LINOLEUM FLOORS

NOTILE ~ CORK TILE ~ ACCOTILE ~ RUBBER TILE

THE

FORUM OF EVENTS

(Continued)

JOYCE KILMER MEMORIAL

ELM trees that should live at least 200 years will form an appropriate memorial to Joyce Kilmer, author of "Trees," if the Allegheny County Commissioners approve a plan proposed by Henry Hornbostel, architect. This great circle or wreath of green, planted on a raised and walled mound, would surround the colors, floating from a higher flag pole, according to the Hornbostel design. A bronze tablet at the base of the steel pole would dedicate the memorial. The proposed location is the South County Park, Pittsburgh.

INCOMPLETE FILES

THE New York Public Library lacks the following numbers of THE ARCHITECTURAL FORUM, and will be glad to receive them as gifts.

Vol. I, Numbers 2, 7, 8, 9, 11, 12

Vol. II, All issues

Vol. III, Numbers 2, 3, 4, 6, 7, 8, 9 (These were issued under title THE BRICKBUILDER.)

Vol. LVII, Number 3 (Sept. 1932).

Copies should be sent direct to E. H. Anderson, Director, the New York Public Library.

DENGLER FOR U. OF P.

IN selecting an architect to fill the chair of design in its School of Fine Arts, the University of Pennsylvania has turned to France. M. Georges Dengler, winner of the Prix Redon and the Grand Prix de Rome, will return next autumn from his present studies at the Villa Medici to begin his teaching work at Pennsylvania. His career started under Tony Garnier, in Lyons, France.

NEW COURSE IN CITY PLANNING

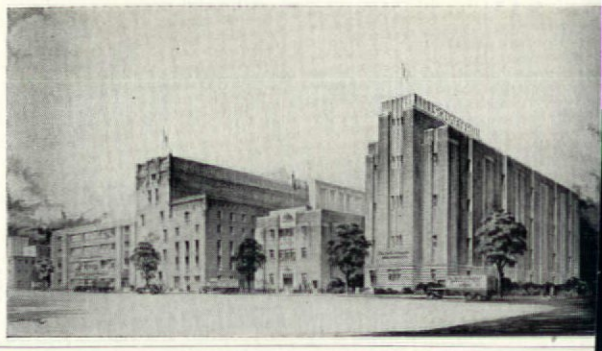
THE need for long range planning of towns and cities is receiving ever growing recognition. Massachusetts Institute of Technology announces that it now offers the degree of Bachelor of Architecture in city planning. Architectural knowledge will naturally form the backbone of the course, but the principles of closely allied fields, such as engineering, sociology, economics and law, will receive attention.

SCHAEFER BREWERY

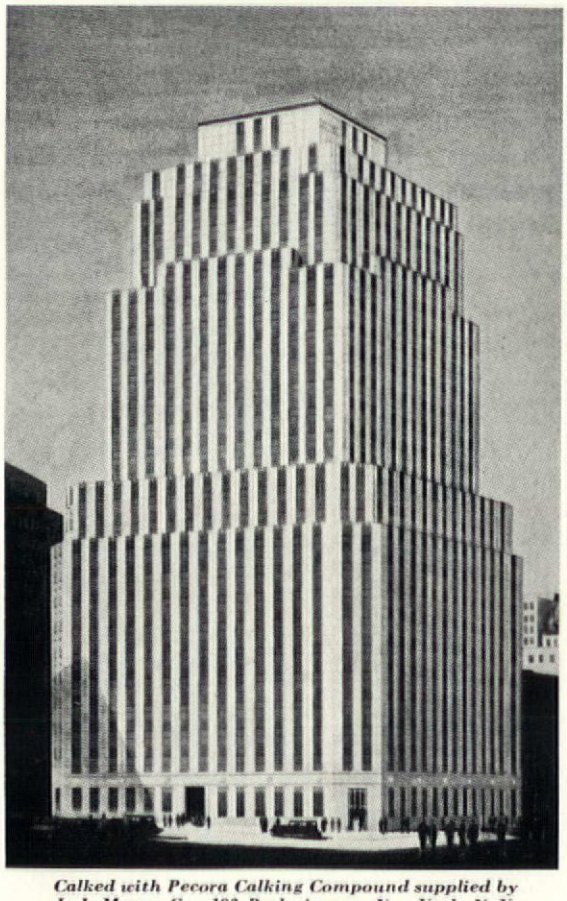
THIRTY years ago, first class brewe architects had a corner on their market, a kept few secrets of their trade. Today, ke competition forces a more secretive at tude. The Waldemar Mortensen and Co pany, architects, is proud of its new admi istration building and bottling plant ju completed for the F. and M. Schaef Brewing Company, in Brooklyn. The two structures along with the new sto house by the Turner Rostock Corporati cost $750,000.

The administration building is among t first industrial structures in this country be completely air conditioned.

Probably the most interesting part of t plant is the stockhouse, which uses a ne type of black wax-like lining for be storage and fermenting tanks. Of reë forced concrete, seven of its eight floors a devoted to beer storage.



Rendering of the F. and M. Schaefer Brewing Company, Brooklyn, N. Y. The right hand building is not yet constructed



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8000 Feet of Evidence Shows the Waldorf How to Build its Bars

New made-to-measure beverage units "follow the lead" of a mile-and-a-half of Monel Metal food service equipment in New York's most modern hotel.

HIEF of the Waldorf's public dining
A rooms are the Empire Room, the
rt Room and the Norse Grill.

The food served in them is prepared
kitchens outfitted with the last word
food equipment...arranged to mini-
ze lost motion and wasted steps.

Splendid service record

om oysters to ice cream, every dish
handled on, or served from, Monel
tal...shelves, cooks' tables and plate
rmers.

Came Repeal...and the hotel's archi-
ts specified Monel for dispensing
erages.

The specially-built bars of the Sert
Empire rooms, the cocktail bars in
Norse Grill, the service bars in the
hens, and the portable bars that are
eled into the various private ban-
t rooms, are *all* Monel.

nd why not? Nearly 8000 running feet of Monel Metal equipment in three-times-a-day use for the Waldorf's *food* service testifies to Monel Metal's fitness for *beverage* service.

Even cooks' tables show no sign of rust or corrosion. Nothing dulls Monel's platinum-like sheen: neither charged water, ice, brine, eggs, fruit or syrups. So the Waldorf's executives concluded that Monel *must* be the best possible material for bars.

Strong, solid, wear-proof

Even harsh cleansers can't mar Monel. And, since it is a solid metal, with no surface coating to chip or peel, nothing can *wear away* its good looks.

The Waldorf's five tap bars, where beer, ale and porter have been dispensed since last spring, show how Monel Metal stands up under the punishing bangs of heavy steins and seidels.

Monel Metal bar in the Sert Room at the Waldorf-Astoria Hotel, New York, N. Y. Duplicate of this bar is in the Empire Room of the same hotel.

Architects retained by *hundreds of other hotels and restaurants have discovered that* Monel, preferred above all other materials for food service equipment, is obviously *the* metal for bars.

• • •

Actual illustrations of recent installations, and a wealth of interesting facts about beverage and service equipment for hotels, restaurants and clubs, are available to interested architects. Write for booklet "Smart Bars".

THE INTERNATIONAL NICKEL COMPANY, INC.
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THE

FORUM OF EVENTS

(Continued)

GOVERNMENT AND FINE ARTS

THE United States Government has long since recognized the eugenics of pigs, but has never lent official recognition to Fine Arts as such. On the Continent of Europe a "Kultusminister" or a "Ministre de l'éducation nationale" enjoys cabinet rank. Not so here.

An active Fine Arts Foundation newly formed aims at achieving Federal recognition through an under-secretaryship. "The American," declares Harvey Corbett, who with author-musician John Erskine is a prime mover of the Foundation, "should be made conscious that we have able artists and should be allowed to make a fair appraisal and comparison, unbiased by critics and dealers whose livelihood depends on deprecating indigenous handiwork. We must remove his inferiority complex in relation to his purchase of Art, but we seek no discriminating tariff to warp his choice by economic means. A national clearing house of art activities will bring the process of Art down to the people, largely through complete publication of where it can be seen.

"Though indirect, the benefit to the architectural profession should be marked. After the architect has selected a functional form which is esthetically pleasing, and after he has done the same for his materials, the artist steps in to supply the amenities, the cosmetics, if you will. Gradually he is evolving ornament which is a natural expression of function somewhere midway between hollow eclecticism and meaningless abstractions which won attention by being bizarre and shocking. This saner course may be seen in the murals and sculpture of Rockefeller Center, where plain surfaces contrast with ornamented and a theme idea is completely worked out through careful organization and coordination.

"Federal recognition of Fine Arts would be a mutual compliment, a mutual coming of age."

EVOLVING ARCHITECTURE

L. ANDREW REINHARD has assembled an exhibit which Louis Sullivan, if he were living today, might name after his book "The Autobiography of an Idea." The collection contains 75 original sketches and drawings by artists and architects for Rockefeller Center, 150 photos of the buildings as they stand, and a very accurate scale model. Now on an extended tour of leading educational institutions in this country, this material offers tangible demonstration that great architectural projects do not spring forth full-grown onto the drafting board.

PITTSBURGH ART COMMISSION

ARCHITECTS dominate the personnel of the new Pittsburgh Art Commission, just announced by Mayor William N. McNair, and all the activity allowed by law is promised following the organization meeting of the body.

Henry Hornbostel, architect, has been elected chairman, and Charles M. Stotz, architect, vice-chairman of the new Commission. Other members are Robert Schmertz, architect; E. M. Ashe, painter; M. L. Benedum, oil executive; Anthony Vittor, sculptor, and S. L. Benedito, hotel manager.

"We will not act merely as a veto body to pass on plans submitted for our consideration," said Chairman Hornbostel. "Rather, we intend to recommend city beautification projects and work out creative plans on our own initiative."

ERRATA

ON page 188, March, 1934, THE ARCHITECTURAL FORUM failed to state that the Eastman Decorators were responsible for the interior decoration of the Tic-Toc Club, in the Park Central Hotel, New York City.

On page 265 of the April issue, THE ARCHITECTURAL FORUM failed to state that Walter Atherton was co-architect with Carroll Tiffany of the brick house shown.

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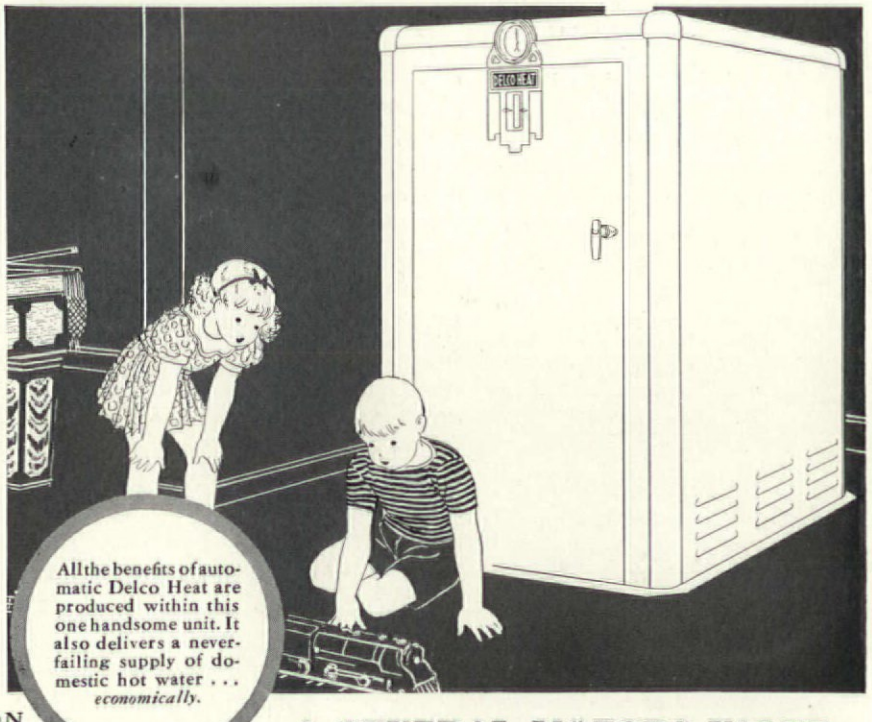

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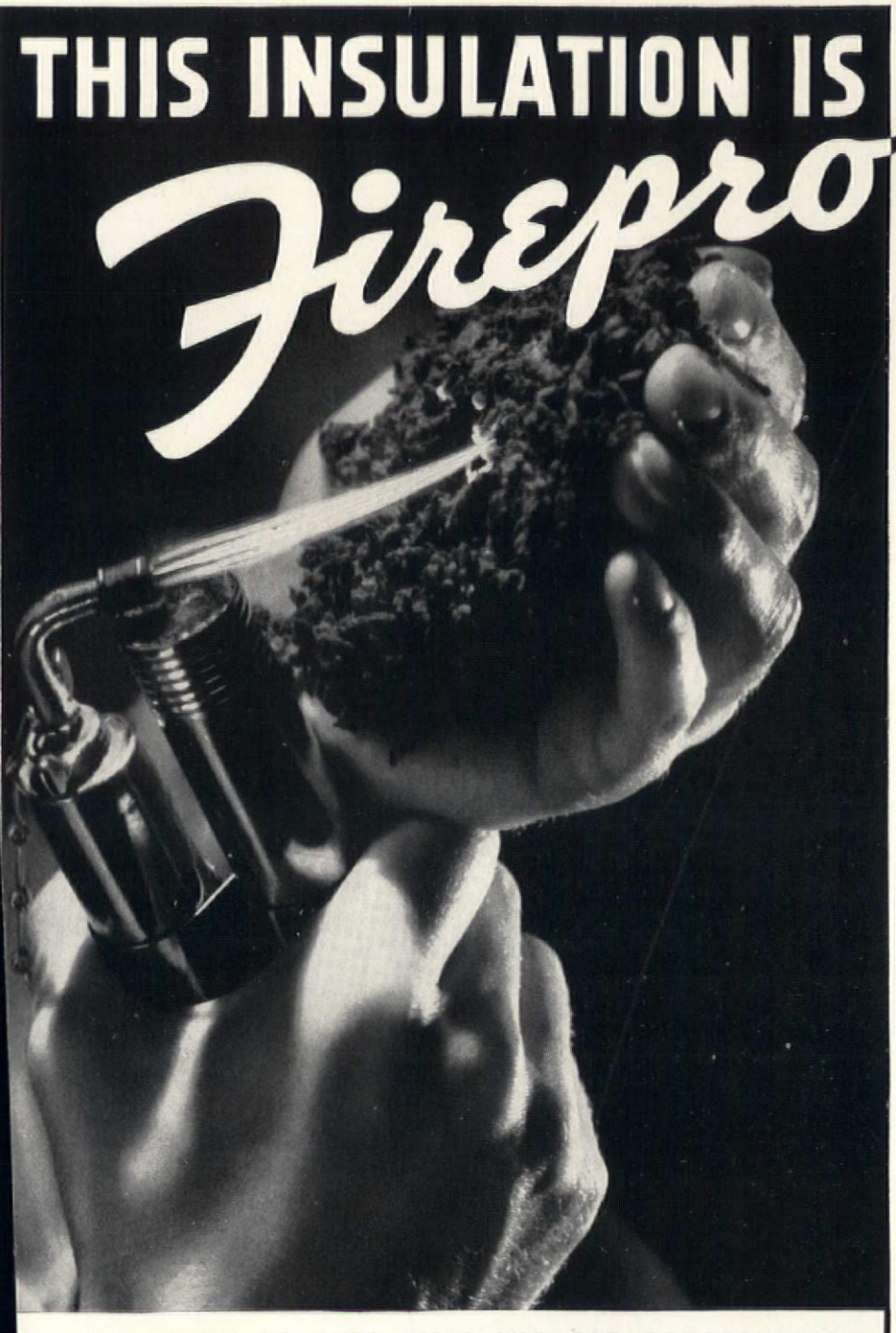

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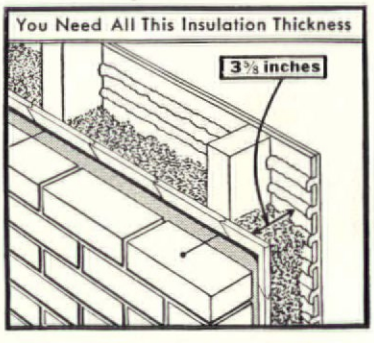

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EAGLE HOME INSULATION

THE FORUM OF EVENTS

(Continued)

DEATHS

WALTER D'ARCY RYAN, director of the illuminating engineering laboratory of the General Electric Company, in Schenectady, March 14.

Exterior lighting of important buildings by night to bring out architectural beauty or prominence is having a pronounced effect on modern design. From the new State Courthouse in Providence to the Bell Telephone Building in San Francisco, the influence of Mr. Ryan has been felt. Lighting at the Panama-Pacific International Exhibition in San Francisco and the 1933 World's Fair at Chicago was the result of his dexterity with the new medium. To him goes much of the credit for establishing the profession of illuminating engineering.

WALTER ROBB WILDER, architect, 59, in Suffern, N. Y., April 5.

At the end of his Cornell architectural training in 1896, Mr. Wilder toured France and Italy for two years, and on his return entered the firm of McKim, Mead and White. Six years later he formed his own firm with Harry Keith White, an association which was broken in 1930 by Mr. Wilder's illness. Thirty years of active architectural practice in New York included country homes, country clubs, public schools, libraries, and hospitals. His best known design is the one which took first prize in a nation-wide contest for the State buildings at Olympia, Wash. He became designing architect there for a series of buildings constructed intermittently from 1912 to 1928. His deep interest in landscape gardening is reflected at his own home.

WILLIAM J. BEARDSLEY, 62, architect, at Poughkeepsie, N. Y.

A resident of Poughkeepsie all his life, Mr. Beardsley designed many public buildings throughout the State, including courthouses in ten counties. He did tuberculosis hospitals for Oneida and Nassau Counties, a welfare home for Erie County and the Attica State Prison. A number of years ago his plans for a relocated Sing Sing Prison in Bear Mountain Park won first prize in a competition. But the project was never carried through.

PERSONALS

THE firm of Oman & Lilienthal, which has designed a number of Chicago apartments and hotels, has a new address, the twelfth floor, 30 West Washington Street, Chicago.

David R. Brown, architect, has moved from 980 St. Catherine Street, West, to 1010 St. Catherine Street, West (Dominion Square Building), Montreal.

H. L. Fetherstonhaugh and A. T. Galt Durnford, announce the formation of a partnership, continuing their practice under the name of Fetherstonhaugh & Durnford, architects, University Tower, Montreal.

H. D. Davenport and Earl G. Meyer, of Lane-Davenport, Inc., architects and engineers, announce the removal of their offices to 609–10 Donovan Building, Detroit, Mich.

The Housing Study Guild announces the removal of its offices from 400 Madison Avenue, New York, to 101 Park Avenue, Room 1113.

Henry G. Morse and Edgar Albright announce the formation of the firm of Morse & Albright, architects, with offices at Essex Fells, N. J.

Wilbur Henry Adams and Associates would like to receive manufacturers' samples and catalogues at 2341 Carnegie Ave., Cleveland, Ohio, where they practice design and re-styling of industrial products.

S. Harold Fenno, architect, formerly with the late Harold Jewett Cook, has opened an office at 438 Delaware Ave., Buffalo.

The drafting room of the Office-in-Charge of Civil Works at the Carlisle Barracks, Pa., is desirous of securing a complete material file from manufacturers of building materials.

Finely executed Lightolier fixtures in all traditional as well as contemporary designs are priced in line with today's budgets. For new construction or modernization, you will find here precisely the right selection for every requirement.

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A Message to Architects and Builders from the P. H. B.

"WE haven't any membership roll, or dues, but you might call us the P. H. B.—Prospective Home Builders. Economic uncertainties have caused delay, but the time is coming when we're going to keep you architects and builders very busy.

"You've produced such attractive homes in recent years that you've trained us to be exacting in our tastes. We want *modern* homes, not just shelter. Homes that are a joy to look at and to live in. Homes that offer convenience and economy. Homes as modern, efficient, appealing as, for instance, this year's motor cars."

* * *

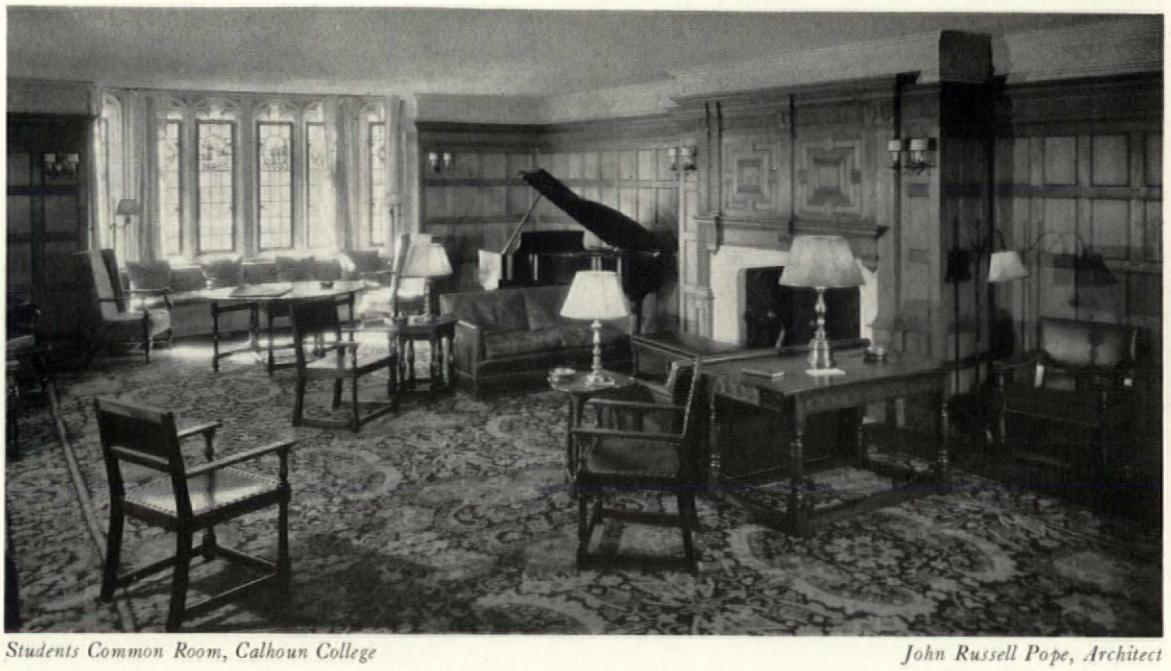
Any home is better to live in and a sounder investment with Kalman Floor Construction. Floors laid on Kalman Steel Joists are rigid, non-creaking, non-sagging. They never shrink to form ugly cracks where walls and floor meet. Even more important, Kalman Joists, combined with concrete slab and plaster, make a home virtually fireproof, because they provide a fire-safe barrier between the living and sleeping quarters and the basement, where 50 per cent of fires start.

Kalman Floor Construction is such a big advantage that it's surprising to learn that it costs only a few cents a square foot more than ordinary construction. That's because Kalman Joists reach the job in the exact lengths required and are easily and quickly assembled, without cutting or fitting. Pipes and conduit are run right through the open joist-webs.

Kalman supplies two distinct types of steel joist: Kalman Joists (one-piece steel trusses) and MacMar Joists (steel trusses assembled by pressure welding). Either type, in combination with concrete slab and plaster, provides fire-safe floor construction at very moderate cost. *Kalman Steel Corporation, Subsidiary of Bethlehem Steel Corporation, General Offices, Bethlehem, Pa.*

Kalman Steel Joists

BETHLEHEM STEEL



Students Common Room, Calhoun College — *John Russell Pope, Architect*

A. KIMBEL & SON, INC.

INTERIOR DECORATORS

commissioned by Yale University to plan, design and execute the furnishings for the major rooms and Masters' houses in the new Residential Colleges and to interpret in these interiors the residential quality and traditional character of the buildings.

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New York, N. Y.

WE ARE PROUD

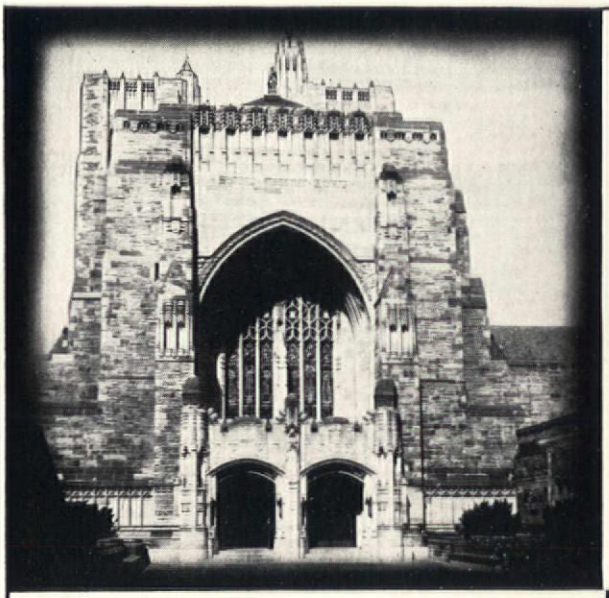
of the fact that John Russell Pope selected Briar Hill Golden Tone Sandstone for exterior trim on Calhoun College — illustrated elsewhere in this magazine.

The rich, colorful beauty of this natural stone will also be found in a number of other buildings on the Yale Campus.

May we send you interesting literature?

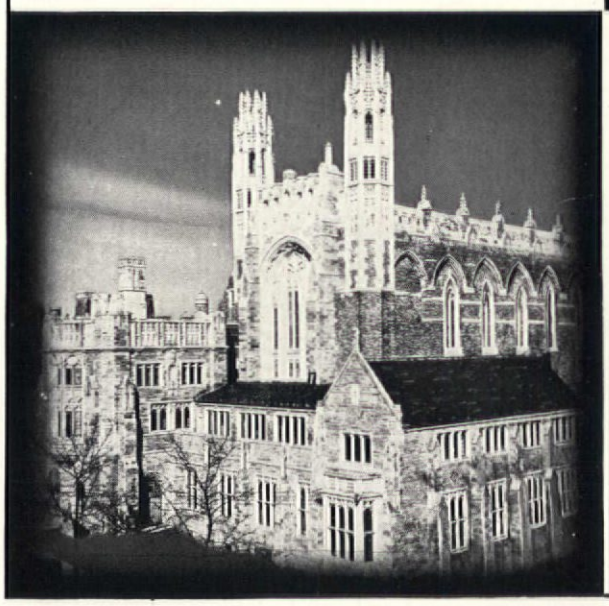
The BRIAR HILL STONE COMPANY
GLENMONT, OHIO

See Our Catalog in Sweet's



THE NEW YALE

It would be difficult to find more convincing evidence of the beauty and quality of Sloane-Blabon Linoleum than its selection for the floors of Sterling Memorial Library, Sterling Law School and the Yale Theatre—three notable contributions to Yale's current $60,000,000 Gothic transformation.



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132 years of experience are the background of the Scovill Manufacturing Company, makers of Scovill Brass Pipe. The highest standards of quality manufacture go into every foot of pipe. It is specified with confidence for installation in residences, apartments, offices and stores—and where remodeling exposes the weaknesses of other pipes. Specify Scovill Brass Pipe, see it installed—then forget it. We will be glad to furnish you with further information on Scovill Brass Pipe—and on other Scovill quality products. Write to the address below.

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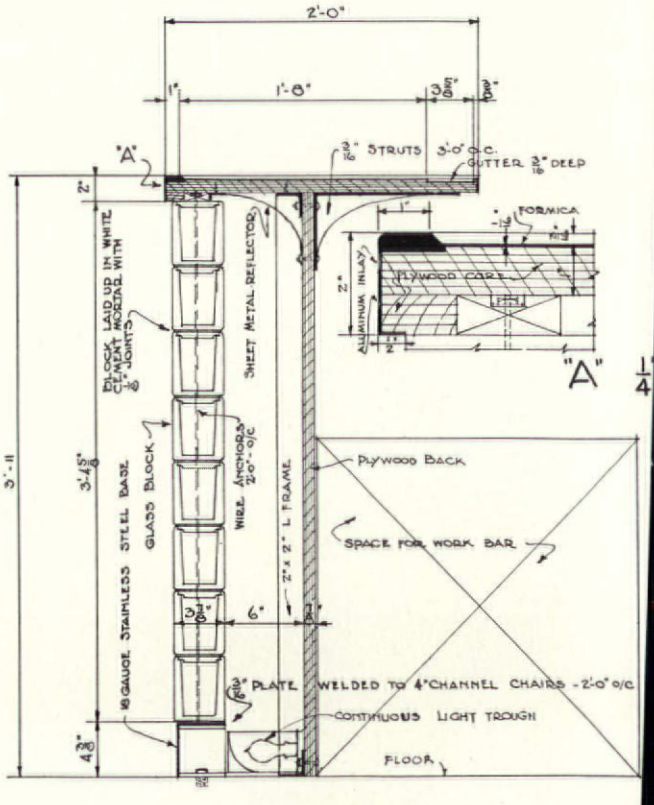
GLASS BLOCKS FOR BARS

Above: The Ladies' Cocktail bar at the University Club, in Toledo, Ohio, designed by George L. Walling. The Owens-Illinois Glass Company manufactured the glass blocks used.
Below: Cross-section of the bar



FILLING STATION OF GLASS

AN INKLING of what the gasoline station of the future may l like was disclosed recently when the Sealed Joint Produc Company of New York announced that the first glass structu of this sort is soon to be built for Shell Eastern Petroleu Products, Inc., in the plaza at Morningside Avenue and 124 Street, Manhattan. The building will stand free on all sid two and one-half stories high.

IMPROVED SPRAY BUILDING CLEANER

A UNIT for cleaning the exterior of carbon and sulphur-stained city buildings by the vapor spray method, more technically known as the high pressure generator system, is manufactured by the Homestead Valve Manufacturing Company. Combining the effects of both heat and pressure, a spray

Barr & Mellott

bombards the surface with minute water globules which act like sand grains in an air stream, except that they lack the abrasive effect of sand. Suitable compounds are often used to soften the deposit and are driven out of the face of the wall with the dirt.

ELECTRICALLY OPERATED THERMOSTATS

A SERIES of automatic temperature regulators utilizing electricity are now on the market. In the words of the manufacturer, the Wilbin Instrument Corporation, "the thermostats are sensitive to a small fraction of 1° Fahrenheit, and on a difference of 1° will move any size control valve from open

Wilbin Heat Motor, Type E

o closed. Yet the valve travel can be arrested at six different positions between open and closed." In place of a conventional otary motor, a "heat motor" of very recent design operates he valve. Even where fluctuations occur rapidly over a wide ange, close control of temperatures is permitted.

WALNUT PARK PLAZA APARTMENTS, PHILADELPHIA
protected by Genasco Standard Trinidad Built-up Roofing
Architects: Stetler & Deysher, Philadelphia
General Contractors: Armstrong & Latta, Philadelphia
Roofing Contractors: Martin & Breen, Philadelphia

For Enduring Protection— Genasco Built-up Roofing

In keeping with the enduring character of this imposing building a Genasco Standard Trinidad Built-up Roof was specified because of its lasting protection and economy of upkeep.

Long life and low maintenance cost are two cardinal points of a Genasco Standard Trinidad Built-up Roof which have won for it such widespread use on important buildings.

For this roof is waterproofed and weather-sealed with Nature's own product — Trinidad Native Lake Asphalt — which cannot be equalled for resistance to water, wear, and weather by any manufactured compounds.

It will pay to find out why leading architects specify Genasco Standard Trinidad Built-up Roofs, and to look into their records of enduring service.

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STANDARD TRINIDAD
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KIMBERLY
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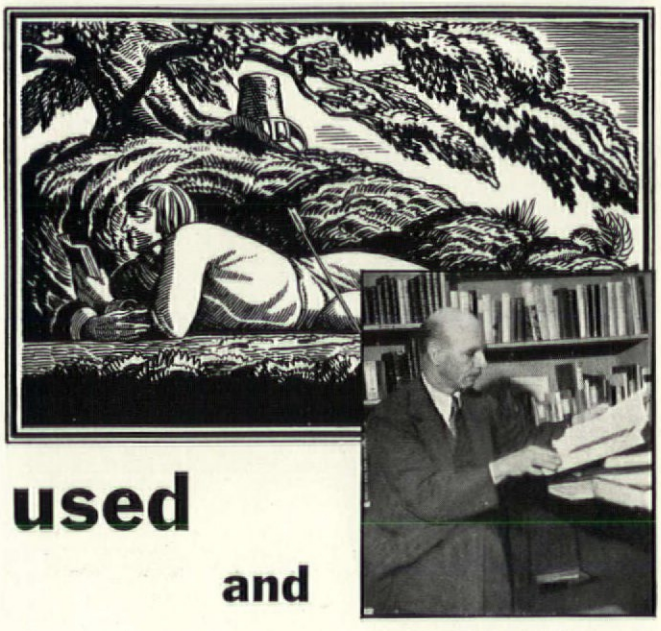

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Rockwell Kent.

ROCKWELL KENT, who needs no introduction here—or anywhere—says of KIMBERLYS, "*These pencils are splendid—I really enjoy using them.*"

Anyone who has once tried them says the same. KIMBERLYS *are* especially good. They don't break readily. They don't scratch at all. They slide smoothly any on paper surface because they are chemically treated so that no harsh particle can possibly be manufactured into the lead. To make them even better each lead is impregnated with wax which acts as a lubricant to make the action smoother still.

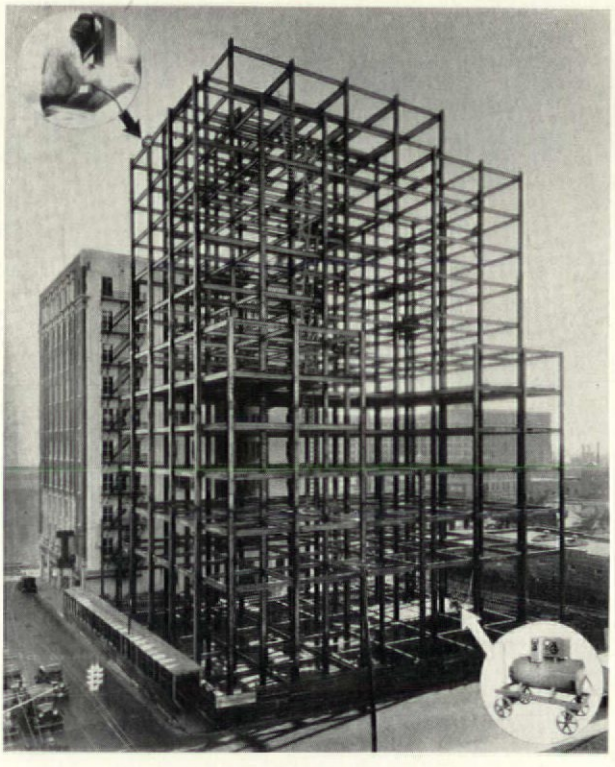
The next time you need pencils, buy KIMBERLYS. At ten cents they are the equal of any drawing pencil on the market; for architects, draftsmen, artists, designers and all who use fine pencils.

Buy them at your art supply or stationery dealer's. If you want to try a sample first we will be pleased to furnish you one FREE. Simply write us on your office stationery mentioning your dealer's name.

GENERAL PENCIL COMPANY
JERSEY CITY NEW JERSEY

REMOTE CONTROL

A NEW device called "Lincontrol" is announced by the Lincoln Electric Company. The makers claim that it is now possible for a welder to work at any distance from his machine and at the same time be able to regulate the current accurately without making trips back and forth. Wherever welding is done at a distance from the machines, as in shipyards or office buildings, boiler or tank shops and pipe lines, considerable time should be saved. The welder will no longer be tempted to use less efficient electrodes, rather than return to the machine to reset the controls. The saving in man-hours of construction time is self-evident.



A "Lincontrol" welding machine remains on the first floor at the right, while the welder works on the top story at the left

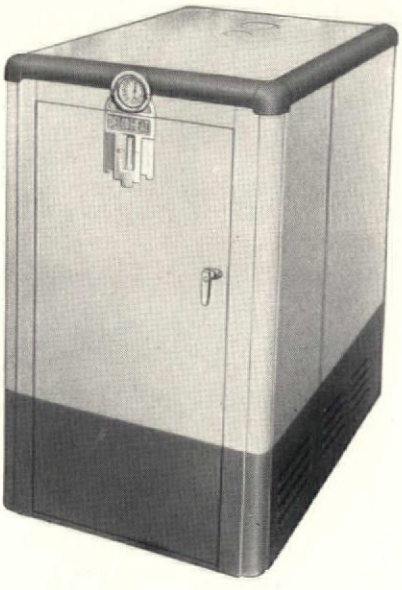
STEEL PLATE FLOOR

THE March 1934 number of the *Technical News Bulletin* issued by the Bureau of Standards, includes an article entitled "Behavior of Flat Steel-plate Floor under Loads." This is a preliminary report giving the results of severe burden tests on a "battledeck" floor, which is a system of steel I-beams to which flat steel plates are welded along the middle of the upper flange. A fuller account in the March *Journal of Research* describes the specimen, explains the method of test, and discusses the results. Four conclusions were reached: (1) The beams and plates behaved as a unit when loads were applied; (2) stresses and deflections agreed with values computed by the ordinary theory of beams; (3) the deflection under a load of 420 lbs. per sq. ft. for 5½ days was 3⅞ in. This became a permanent deflection of 2¾ in. after removal of the load; (4) no positive indication was given as to the most effective width of plate; under similar test conditions a width up to 24 in. may be assumed in designing with ¼-in. plate.

This test indicates that for ordinary spans, if the spacing of the beams does not exceed 100 times the thickness of the plates, the full width of the plates may be considered effective

DELCO HEAT

A COMPACT heat boiler by the Delco Appliance Corporation is now available. Operating on either steam or hot water systems, this automatic oil fuel plant also has a domestic water heater with summer and winter control. A pleasing furniture-steel cabinet conceals all controls, and the connections are hidden in the rear. Sheets of water in fins receive the



heat. Before being mixed with finely atomized oil, the air which enters the burner is preheated to 120° F. to aid in combustion. This principle has been used in automobiles for many years. A No. 3 oil is used. The pump is of the internal rotary gear, packless type. A chromotherm is upstairs in the living quarters. As the unit, which comes in four different sizes, can be delivered into a basement in sections, there is no need for building alterations.

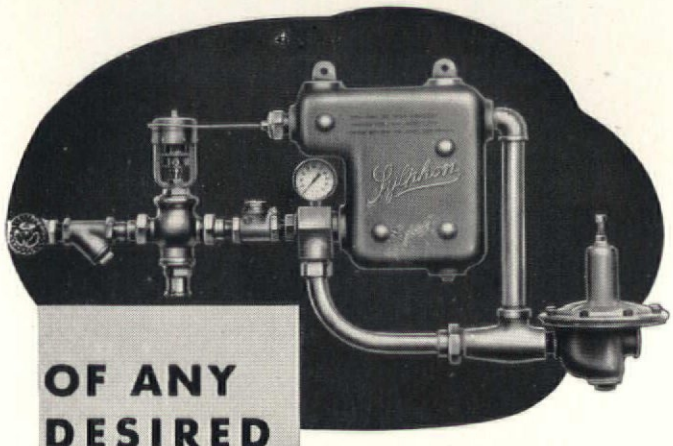
REFRIGERATORS

FAITH in the future and a conviction that the findings of its widespread survey are accurate have led the Frigidaire Sales Corporation to expand its line of refrigerators to fifteen models, and to back it up with its most comprehensive sales campaign since 1929. The price range is from $99.50 to $509. Investigation tended to show that the potential market was approximately 25 per cent saturated. In the history of other industries, when this point is attained, public acceptance of the product has been registered. Similarly, the 25 to 50 per cent period witnessed the greatest annual sales volume. The corporation anticipates for the industry a sales volume considerably larger than any figure heretofore reached.

DRESSING LIGHTS

STAGE dressing rooms have long had lighting in conjunction with mirrors which disposes of all shadows on the face. The Varies Manufacturing Company, Decatur, Ill., offers the same convenience with the new Edge-Lite Aplakay lighting fixture for bathroom and dressing room use. Built in as part of the door or mirror frame, two easily movable lighting fixtures are at either side or across the bottom of the mirror. It is claimed that the two fixtures provide all illumination necessary for the average size bath or dressing room. Furnished in several sizes, Edge-Lite can be had in any color or in chromium finish.

STEAM + WATER = hot water



OF ANY DESIRED TEMPERATURE

Wherever hot water is used, and steam and water are available, this No. 912 Sylphon Steam-Water Mixer will produce a plentiful supply of hot water—automatically and economically—and at any desired temperature, whether it be 50° or up to 330°.

A complete unit in itself, it requires only to be connected with steam and water lines.

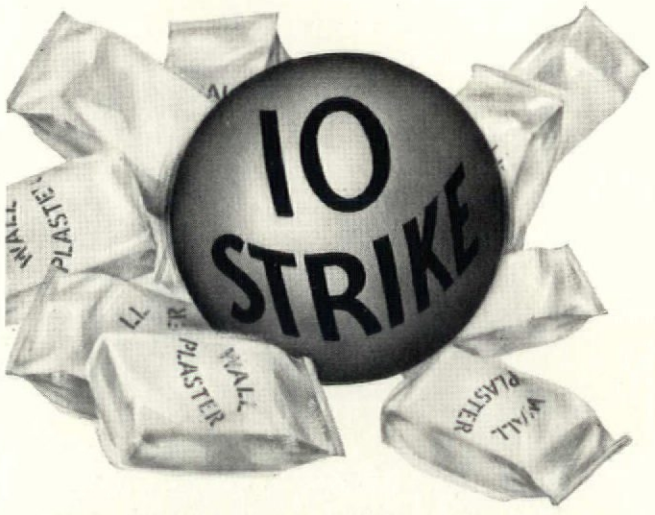
It injects steam directly into water, without the loss of heat units. Heats water only as used, eliminating wasteful steam consumption. Permits no loss from overheating nor danger from excessive temperature. Allows no loss from condensation and requires no traps.

The careful control of hot water's generation and use that this device provides offers large users of hot water the opportunity for savings in fuel and water—a new convenience in the securing of hot water of any desired temperature wherever and whenever required. Write for bulletin JA-510 which fully describes the Sylphon Steam-Water Mixer, its operation and many useful applications.

FULTON Sylphon FOR TEMPERATURE CONTROL

FULTON SYLPHON CO.
KNOXVILLE, TENN., U.S.A.

European Representatives, Crosby Valve and Eng. Co., Ltd., 41-2 Foley St., London, W. 1, Eng.; Canadian Representatives, Darling Bros., Ltd., 140 Prince Street, Montreal, Quebec, Canada.
Representatives in All Principal Cities in U. S. A.



IT TAKES only 10 bags of plaster to cover 50 square yards of Reynolds Ecod Fabric lath, and for this reason alone many have chosen it. However, this is not the only economy and not the only advantage. Many who use Ecod, in fact, would prefer it even if its installed cost were at the top of the scale instead of where it is, at the very bottom.

Ecod forms a strong, rigid structure, minimizing plaster cracks, preventing falling plaster. Installed easily and quickly and economically. The cost, in place and plastered, is no greater than that of a good wood lath job.

For surfaces where insulation is highly desirable, Ecod Fabric has been made available with integral Metallation.★ In this form (Reynolds Metallated Ecod Fabric) it offers all its familiar advantages, and in addition the newest type of efficient insulation — a mighty plus item that adds not a minute to the labor time nor a cent to the labor cost of installation.

Here is a remarkable product which in structural strength and/or insulating results can compete with anything and can be used in the best residential and business work; yet whose low cost makes it available for even the most inexpensive structures.

Send for samples, price lists and booklets covering Reynolds Ecod Fabric lath, plain and Metallated.

★*Metallation is the trade name for polished metal insulation products made only by the Reynolds Metals Company, Inc.*

REYNOLDS METALS COMPANY

INCORPORATED

19 Rector St., New York City 345 Ninth St., San Francisco

400 Wrigley Building, Chicago

INDIRECT ILLUMINATION

ATTACKING the problem of lighting the small or medium sized store, the Edwin F. Guth Company of St. Louis has developed the Dual Super-Illuminator. Simple in principle, it uses color caps between reflectors to throw light of a soft shade against the upper reflector. Four changeable color caps supplied with each unit permit an easy shift of the color scheme. With the new Mazda three light lamp, and an electrelier canopy switch, three intensities of illumination are obtainable. The first pull of the switch turns on the lower wattage filament; the second brings on the higher wattage filament alone; the third uses both filaments together.

Dual Super-Illuminator for Smaller Stores

FLEXIBLE CONDUIT FITTING

DESIGNED to obviate explosion dangers, the new Pyle-O-Flex flexible conduit fitting of the Pyle National Company is said by the manufacturer to be watertight, vapor tight, and explosion proof. It can be applied in the same way as ordinary flexible conduit. The Underwriters' Laboratories place it in Class 1 Group D, and Class 11 Group G hazardous locations. Its flexibility eliminates the former more expensive bending and fitting process. According to the maker, it withstands 5000 lbs. of hydrostatic pressure.

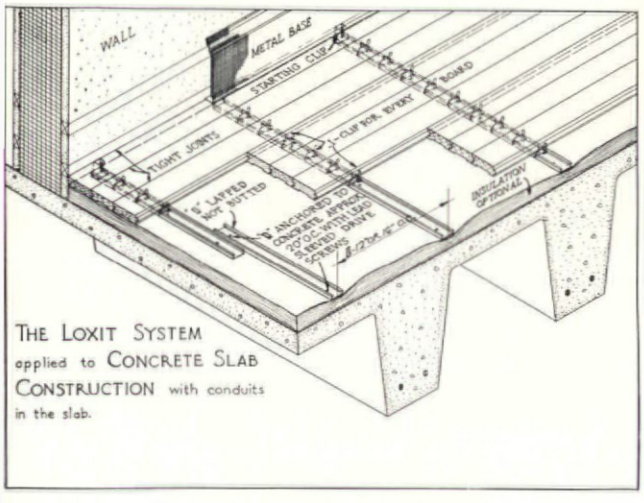
Pyle-O-Flex Conduit Fitting

ESCALATORS

THE New Sears, Roebuck & Company department store at 63rd Street and Halsted Streets, Chicago, Ill., will use Otis escalators between each of its five floors.

LOXIT SYSTEM

IN THE past the chief objection to wooden floors has been expansion or contraction caused by water absorption or drying out. Knapp Brothers Manufacturing Company has developed the ingenious Loxit system, a mechanical method for laying



THE LOXIT SYSTEM applied to CONCRETE SLAB CONSTRUCTION with conduits in the slab.

ordinary strip flooring without the use of nails, wood sleepers or mastic. Although no claim is made that it will keep lumber from absorbing moisture or from shrinking, the system does claim considerably less moisture absorption and great utility in buildings where no other type of wood floors could be used. Laid in the old-fashioned manner, metal channels with overlapping top edges replace sleepers. A metal clip also replaces nails. This slips into the channel immediately ahead of the last board and is driven into place by the next board. The driving operation forces the clips to bite into and over the tongue of one board and embed themselves in the groove of another. Slotted tongues on the clips allow for adjustment to the tongue and groove of the flooring.

BETTER GASOLINE STATIONS

FILLING station architecture is not famous for its beauty. Rather pleasant examples along the Bronx River Parkway in Westchester County, N. Y., suggest what architectural insight and coordination can achieve in a region severely zoned by law. Approaching the problem from the purely functional point of view, the Westinghouse Electric Company has issued a new booklet illustrating with color the physical equipment which it has to offer. On a commercial basis, the exterior of a filling station should either command attention through cleanliness and space in restricted zones, or through character and unobtrusiveness in zoned areas. Competition is swiftly bringing a less obnoxious type largely because of public preference for station designs such as are illustrated by colored renderings in this same booklet.

OIL BURNING BOILER

IN addition to the list of oil burning boilers is the new Crane "O-1" series, which is built with various capacities up to 400 sq. ft. of steam, or 2,240 sq. ft. of hot water. A revertible flue is formed by means of passes between the adjacent sections which applies the down draft principle, providing secondary heating surface. As gases in the flue travel must cool before descending to the smokehood outlet, the water absorbs some heat which would ordinarily escape up the chimney.

Does paint reduce sound-absorbing efficiency?

The Vital Test for Acoustical Materials

IT is important to know the effect of repeated painting on sound-absorbing material applied to walls and ceilings to subdue noise.

Will the effectiveness of the material diminish with each painting until nothing more than a wall covering is left?

You are certain about the result when Acousti-Celotex Sound-Absorbing Tiles are specified. Paintability—the feature of greatest importance—is assured. It can be painted repeatedly without losing any of its sound-absorbing efficiency. It is permanently effective!

More than 6,000 Acousti-Celotex jobs in offices, banks, schools, theatres, hospitals and churches testify to its general acceptance. They also illustrate how readily the Acousti-Celotex rectangular Modern Units lend themselves to attractive patterns.

Prices are now lower. Check up costs with Acousti-Celotex contracting engineer in your city, or write direct for information, including data on Type A, the new half-inch material, and also non-combustible Mineral Tile, available for special requirements.

THE CELOTEX COMPANY
919 N. Michigan Ave., Chicago, Ill.

State Highway Building, Austin, Texas; Adams & Adams, architects, Lang & Witchell, associate architects. The architects on this building specified Acousti-Celotex for the ceiling of the Hearing Room.

PAINTABLE ACOUSTI-CELOTEX PERMANENT

TRADE MARK REGISTERED U.S. PATENT OFFICE

THE CELOTEX COMPANY
919 No. Michigan Ave., Chicago, Ill. A. F. 5-34
Please send me general literature on Acousti-Celotex.

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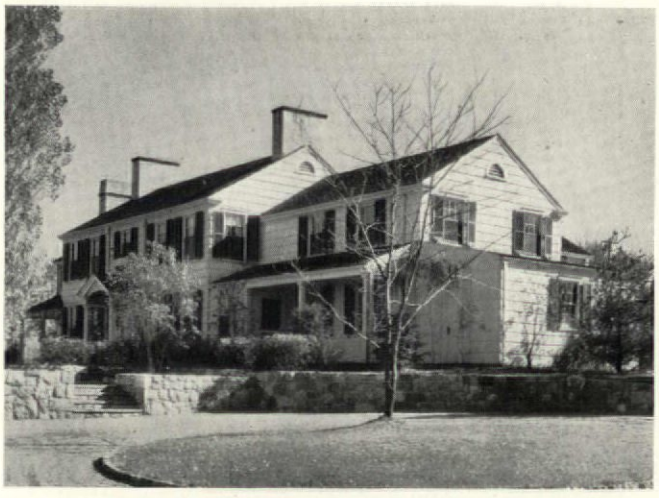
Address_____

City_____ State_____



House in Great Neck, N. Y. Architects, Evans, Moore & Woodbridge, New York City. Painted with Cabot's DOUBLE WHITE and Green Gloss Collopakes.

It Isn't Paint That's Expensive, It's Painting and *Re-painting*

Less than one-fifth of the cost of painting pays for the paint. The rest is for putting it on.

> "In painter work the most important fact to remember is that the cost of applying paint is from four to five times the cost of the paint itself, — and therefore to use materials of poor quality because of their relative cheapness, is false economy." — *Encyclopedia Britannica, 1928 edition*

Paint materials of high quality mean repainting less often, with resulting large savings to your client.

It is well known that Cabot's Collopakes stand up long after cheaper paints have gone to pieces. Even if Collopakes did cost much more than cheaper paints, it would still be economy to use them. Cabot's DOUBLE-WHITE, Old Virginia White, Gloss Collopakes, Stucco and Brick Stains, and Interior Flats all cost your clients far less in the end.

The coupon below will bring you full information

Cabot's Collopakes

FOR EVERY PAINT USE

Made by the Makers of Cabot's Creosote Shingle and Wood Stains

Samuel Cabot Inc.
Manufacturing Chemists

NRA WE DO OUR PART

141 MILK STREET
Boston, Massachusetts

Gentlemen: Please send me Color Card and information on Cabot's Collopakes.

Name.....

Address..... AF-5-34

MANUFACTURERS' PUBLICATIONS

No. 501
POWER PUMPS

A great deal of technical information is contained in th latest four-page circular of the Worthington Pump and Ma chinery Corporation. The specifications apply to the seven uni listed at the back, which vary from 1.6 to 50 U. S. gallo displacement per minute.

No. 502
ELECTRICALLY WELDED IRON PIPE

Explaining the results of several acid tests with numerou photographs to amplify the text, a new pamphlet of th Republic Steel Corporation compares Toncon Iron Pipe wit other ferrous pipe, and lists its physical properties and con stants. Micro-photos show sections of Toncon pipe throug the base, the junction of weld and the center of weld. A set c technical specifications is included at the end.

No. 503
EXPERIMENTAL LIGHTING

Comparative merits of tungsten filament lamps are bein weighed by the Hygrade Sylvania Corporation. Claiming a enormous gain in luminosity for the sodium type, the engineer ing department of the firm staged a number of ping pon games played alternately under sodium and tungsten lamps Of the brilliant yellow sodium light, one contestant said "You see better, but not so much." Others noted a strobos copic, or flicker effect. As no conclusions were reached, ad ditional practical experiments will follow.

No. 504
CAULKING

A brief circular by the Pecora Paint Company describes th two types of caulking which it now offers. One, thinner i consistency, is applied with a gun, the other with a knife.

No. 505
VALVES

Eleven special features of its new valves are discussed in th latest circular of The Kennedy Valve Manufacturing Com pany. A few of these are: a deep-run, non-heating hand-whee a rust-proof, cadmium-plated, malleable-iron union bonn ring; a beveled shoulder on the stem; interchangeability parts; a slip-on disc-holder which can be locked on the ste These valves operate under working pressures of 150 lb. f steam and 250 lb. for water.

No. 506
TERRAZZO FLOORING

Twenty-four shades and patterns of chipped marble floori to be used with Atlas White Portland cement are illustrat in color in a new booklet of the Universal Atlas Cement C The last three pages include full specifications and explain t two methods of laying terrazzo floors.

No. 507
WESTINGHOUSE LIGHTING

New developments in illumination are illustrated in a n 32-page booklet of the Westinghouse Electric and Ma facturing Company entitled "Westinghouse in the World Lighting." Floodlighting, aviation field lighting, stadium lumination, home lighting, and the lighting of the Century Progress are among the more interesting installations sho

A second Westinghouse booklet entitled "Luminous Fo tains" illustrates in color and describes the latest devel ments "Aqualux" fountain equipment. Typical sections sh arrangements for placement of lights, hiding of pump continual re-use of water. The types of fountains shown pool, pedestal, basin-pool. Five kinds of floodlights are lustrated. A discussion of mobile color lighting control is cluded at the end.

lo. 508
lu Wood

New wall and ceiling treatments with Nu-Wood (an all ood fiber board) are presented in a booklet issued recently y the Wood Conversion Company. Decoration, insulation nd acoustical correction for offices, churches, schools, restauants, stores, hospitals, theater lobbies, and houses are demontrated. The booklet also contains directions for the applicaion of Nu-Wood.

lo. 509
Casein Paint

A new casein paste type of paint, "Texolite," is described n a brief circular issued by the Paint Products Division of the Jnited States Gypsum Company. Using water as a reducer, t requires only one application and does not have an unavorable chemical reaction with lime. Odorless and washable, t comes in eight colors and white.

lo. 510
levator Lubricants

Highly specialized lubricants for elevator use are listed in a iew Otis Elevator Company pamphlet. Besides these, several roducts for cleaning and protecting the surfaces of elevator quipment are included.

lo. 511
coustical Data

Issuing figures in more convenient form than heretofore btainable, the Acoustical Materials Association (in its own ords) "does not wish to discredit other data but, recognizing ie confusing differences which have existed in the past, beeves that a single set of values approved by all members of ie Association is preferable." Besides detailed statistical formation, there is a complete description of the samples sted and the methods of mounting employed. As new test ita becomes available, other bulletins will be published eriodically. An accompanying pamphlet on the "Theory and e of Architectural Acoustical Materials" is also offered.

o. 512
fety Treads

Alundum Rubber Safety Treads are fully described in a ief circular of the Norton Company. Suitability of the oduct for several types of treads is suggested by section awings showing how it is applied to wood, steel plate, old or w concrete. The non-slip element in the tread consists of ps or granules of ceramically bonded Alundum abrasive uminum oxide).

REQUEST FOR DATA

To obtain any of the publications reviewed on these ges, indicate the number and send coupon to THE CHITECTURAL FORUM, 220 East 42nd St., New York.

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se check here if engaged in Architectural Practice ☐

She said she had heard about ★ the Lavette

so this is what he told her

"Glad you asked about that. Almost every house we design now has an extra washroom—upstairs or down. Has to have, to sell. The Lavette—Kohler's own name for such a washroom—is the best thing of its kind we know of."

•

Space requirements for the Lavette are small. Three and one-half feet by four and one-half feet will do. Such an installation costs little, saves steps, and adds to the health of the family.

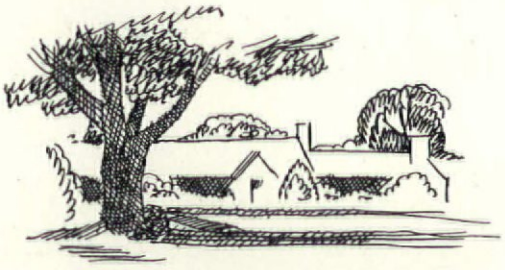
For this purpose we recommend the smart, new Kohler Syphon Jet Integra. Quiet, it can scarcely be heard outside of the Lavette door. 2½-inch passageway (larger than any other one-piece toilets) . . . large water area with less soiling space . . . 3-inch-deep water seal . . . strong cleansing rim flush . . . smooth surfaces. *No back syphonage. No danger of water pollution!* To match it, we also suggest the Kohler Claridge Lavatory—modern lines, beveled corners, flat roomy top.

Kohler plans plumbing to fit in with the architect's plans. Phone the Kohler showroom or write us whenever we can help you. Kohler Co. *Founded* 1873. Kohler, Wis. *Shipping Point,* Sheboygan, Wis.

★ *Every home should have a Lavette, and every Lavette should have a new, quiet, one-piece Integra Toilet.*

★ *The popular Claridge Lavatory, with handy, chromium-plated built-in towel bars, harmonizing with the Integra Toilet.*

KOHLER OF KOHLER
PLANNED PLUMBING



"A creeping bull market"

FOR the first time in years big properties are changing hands. The "creeping bull market" spreads steadily. In the New York suburbs, for example, a good deal of quiet acquisition of fine places is going on.

Discriminating buyers the country over appreciate that they may never again be able to acquire a fine home more inexpensively than today. Further, the conviction is borne in upon them that there is no surer hedge against inflation than ownership of real estate.

Conversely, owners of big homes and estates are beginning to realize that there is at last a reasonable market for their properties.

In response to requests from readers, and in the interest of buyer and seller alike, the

FORTUNE

Country Estates and Apartments Section

is inaugurated with the May issue.

FORTUNE readers who want unusual homes may discover them advertised here. Owners and brokers will find this section an ideal medium for reaching the finest type of prospective buyers and renters — more than 90,000 of the ablest, most prosperous people in America.

The June FORTUNE will carry additional advertising of fine homes. Reprints of all real estate advertisements that appear in FORTUNE will soon be available to prospective buyers and to brokers, on request. Rates and details for advertising in *Country Estates and Apartments* are likewise available on request.

F. D. DUKE, *Advertising Manager*

Fortune

BELLEVUE STRATFORD

Mention Philadelphia to world travellers and they'll say—"Bellevue-Stratford". This famous hotel has always attracted those who appreciate the finer things of life; those whose experience has taught them where to find facilities, comforts and services in the fullest measure.

CLAUDE H. BENNETT, *Gen'l Mgr.*

Rates consistent with present times.

B·O·O·K·S

FOR the convenience of our readers, books may be obtained from the Book Service of THE ARCHITECTURAL FORUM by sending the amount of the regular list price with the order. Information regarding prices, authors, and titles may be obtained from the same department.

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In all types of Buildings

LARGE or SMALL

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JOHNSON *Automatic Control Systems*

"Duo-Stat" Zone Control

eat conservation in existing buildings—or new ones—
y means of JOHNSON "DUO-STATS." The various zones
the heating system controlled in accordance with the
oper relationship between outdoor and radiator tem-
eratures. Also, switch and clock control of heating risers.

Regulation of Ventilating and Air Conditioning

ermostats, humidostats, switches, and a variety of
ecial apparatus to control valves, dampers, and other
paratus on temperature or humidity variation. Heating,
oling, humidifying, dehumidifying—whatever the
oblem, Johnson equipment is readily available.

Room Temperature Control

Room thermostats to operate radiator valves, dampers, or unit conditioning machines. The well-known Johnson "Dual" thermostats to maintain a reduced, economy temperature in unoccupied rooms while the rest of the building is at normal temperature, or for night operation of the entire building. Separate steam mains are not required.

Periodic Flush Systems

Johnson periodic flush systems save water, utilize the full force of the water pressure for cleansing, and reduce the load on supply and waste pipes by accomplishing intermittent flushing in various parts of the building.

JOHNSON SERVICE COMPANY

Main Office & Factory: Milwaukee, Wis. • Branch Offices in Principal Cities

JOHNSON HEAT CONTROL

FROM THE OLD SOUTH

A RESIDENCE—ESPLANADE AVENUE, NEW ORLEANS

A SMYSER-ROYER CO.

CAST IRON VERANDA

Charmingly reminiscent of the South "at its sunniest" this graceful cast iron veranda gives realism to the romantic traditions of the past. (For details of design see Smyser-Royer Catalogue — Design No. 72.)

Smyser-Royer designs date back to the days "before the War" and are noted both for beauty and authenticity. Architects now considering iron verandas in building or remodelling are invited to write for a particularly interesting booklet — CAST IRON VERANDAS.

SMYSER-ROYER COMPANY

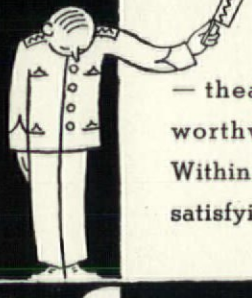
Main Office and Works, York, Pa.

Philadelphia Office, 1700 Walnut St.

CHICAGO

OVERLOOKING LAKE MICHIGAN AND WORLD'S FAIR

From 2 to 8 minutes from all depots. Boulevard location—excellent garage and parking facilities. Next door to the Loop—shops — theatres — everything worthwhile to visitors. Within—a gracious home—satisfying in every detail.



DIEM

the STEVENS

MICHIGAN BLVD. 7TH TO 8TH STREET
3000 OUTSIDE ROOMS 3000 BATHS
3.00 UP

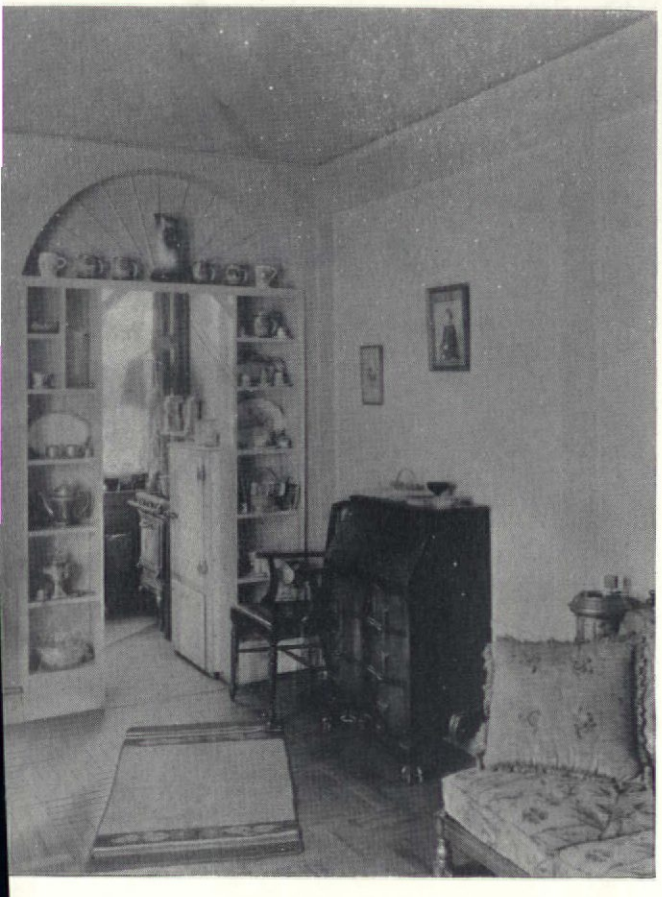
every step from manufacture to maintenance

OTIS

ELEVATOR COMPANY

339 OFFICES THROUGH OUT THE WORLD

FROM PROSE...



...TO POETRY

Architect Manoug Exerjian remodels New York apartment and obtains striking glaze finishes with Dutch Boy

NUMBERLESS thousands of commonplace *interiors* join the modernization parade. Here is one of them . . . a job by Manoug Exerjian, New York architect, who converts a prosaic apartment on 33rd Street into an office of remarkable interest and charm.

Dutch Boy . . . the ideal glazing base

Mr. Exerjian gives much of the credit for the pleasing result to the beautiful glaze effects on walls and woodwork, made possible by the use of Dutch Boy White-Lead.

"There is no more beautiful paint finish than glazing," says Mr. Exerjian, "but not more than 1 out of 10 jobs is done successfully.

"This is largely due to improper preparation of the base. The base paint must never be dead flat. It should have a slight sheen.

"By mixing Dutch Boy White-Lead in the proper proportions you obtain the ideal base for this kind of finish."

Dutch Boy provides paint for every surface . . . and every finish

Dutch Boy White-Lead makes paint for wood, plaster, wall board, metal, brick, stucco and other surfaces. Moreover it makes paint for finishes of every kind. Mixed with linseed oil it produces long-wearing exterior paint. Mixed with flatting oil it provides durable, washable interior finishes . . . plain, mottled, glazed, blended or textured. And by adding Dutch Boy colors-in-oil you can obtain any one of a thousand tints.

So plan your modernization with Dutch Boy in mind, whether it be for an apartment hotel, home or any other kind of building. It offers not only utility, beauty and durability, but exceptional economy as well.

DUTCH BOY *All-Purpose Soft Paste* **WHITE-LEAD**

LINSEED OIL — FLATTING OIL — LIQUID DRIER — WALL PRIMER — COLORS-IN-OIL

NATIONAL LEAD COMPANY

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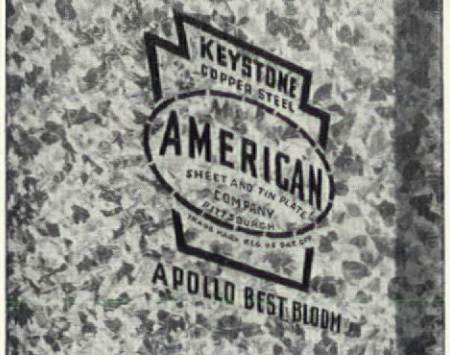

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Black and Galvanized

For Building Construction
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AMERICAN Products are high grade and are carefully manufactured in every particular—both mechanically and metallurgically.

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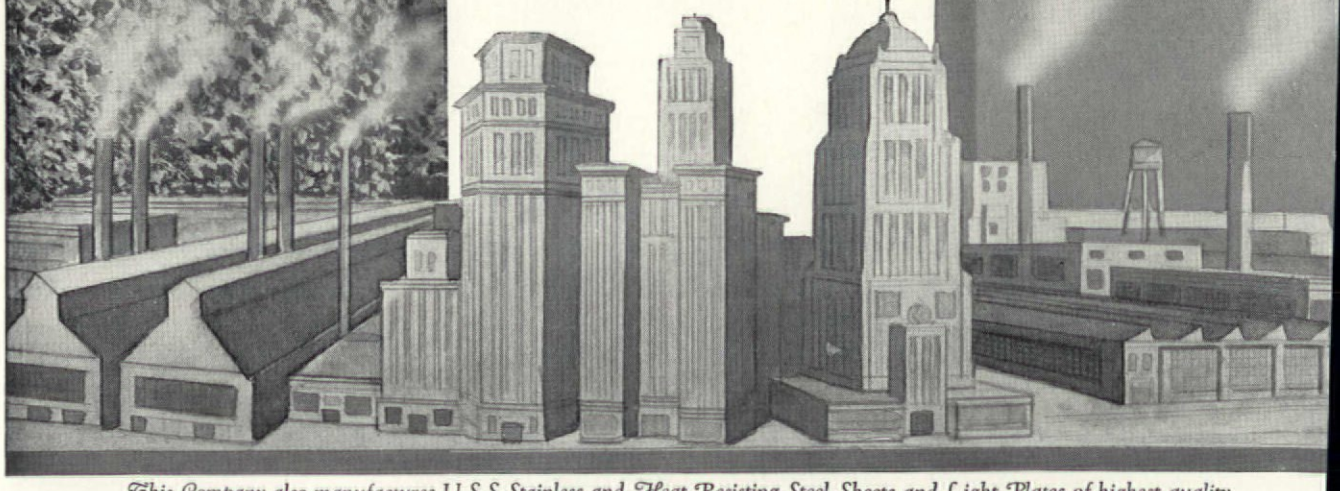

This Company also manufactures U S S Stainless and Heat Resisting Steel Sheets and Light Plates of highest quality

U S STEEL

American Sheet and Tin Plate Company

GENERAL OFFICES: Frick Building, PITTSBURGH, PA.

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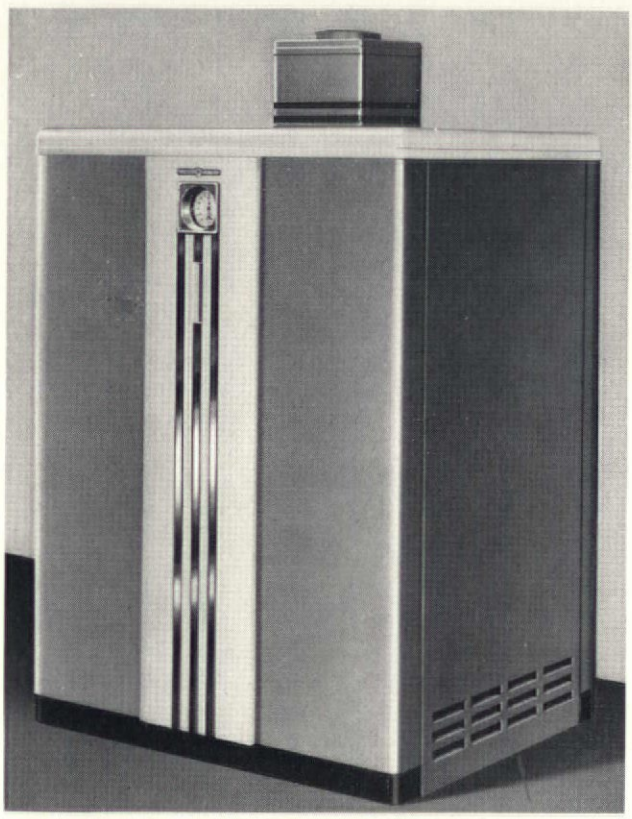
Write for full information and literature - *District Sales Offices in principal c*

Announcing

THE GENERAL ELECTRIC FURNACE FOR GAS

A complete gas heating unit
for steam, vapor or hot water heating
—or for use in connection with the
G-E Air Conditioning System



Beautifully finished steel shell, two tones of gray lacquer, rich chromium trim, rounded corners. Designed to burn gas with highest practical efficiency.

Two residential types—one commercial type—32 different sizes.

THIS newest member of the G-E line supplies automatic gas heating under the G-E monogram. With it your client has all the advantages of gas fuel—no moving parts, long life, and moderate installation cost. Because it is a complete heating unit, not an attachment for an ordinary boiler, it burns gas at the highest practical efficiency, keeps fuel bills down.

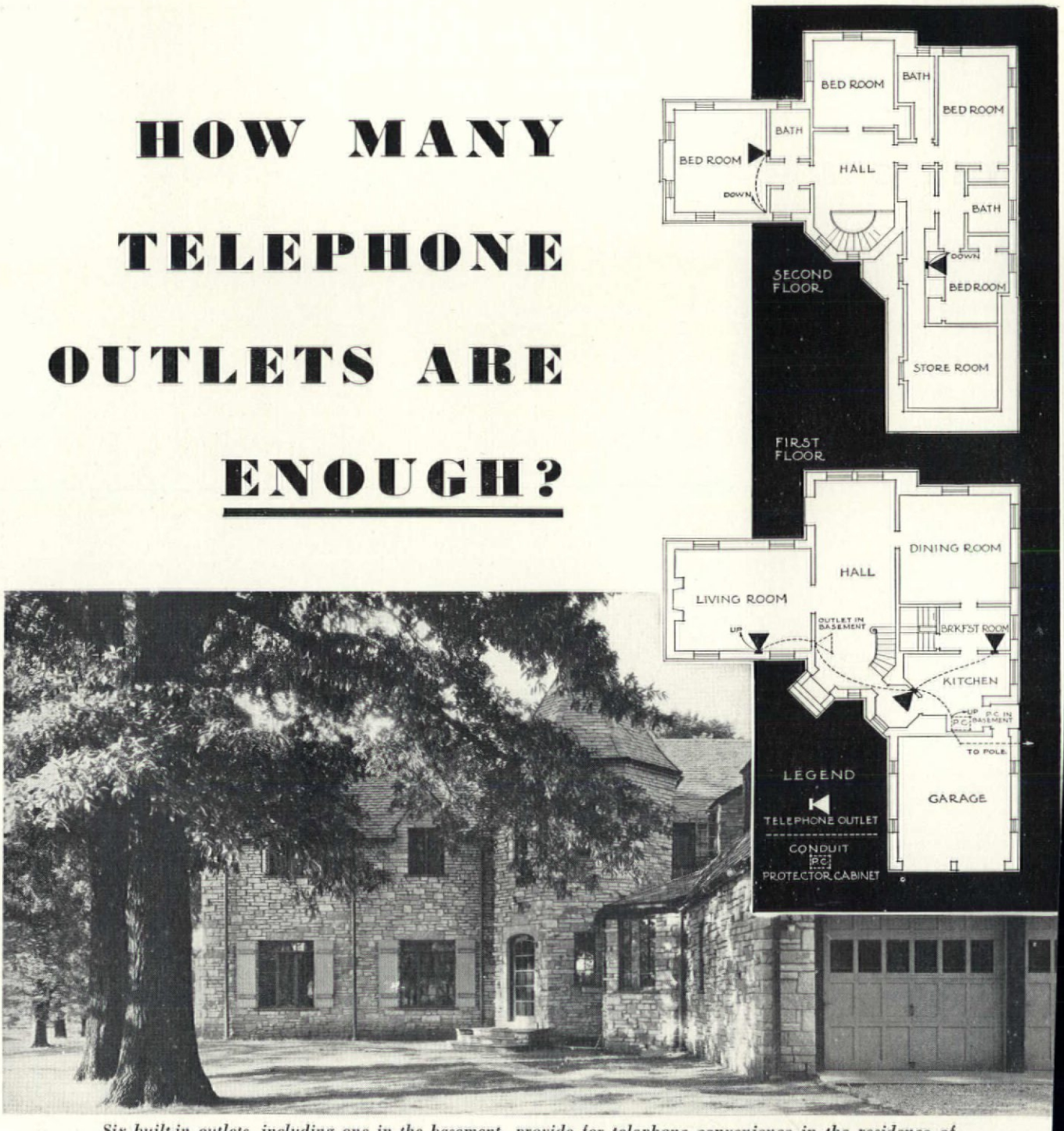
The smaller residential type is made in 4 different sizes, and has a water-backed firebox for greater efficiency. The larger residential type comes in 6 sizes and has a waste-heat saver that cuts off secondary air automatically when the burner shuts down, reduces stand-by losses to a minimum.

The commercial type comes in 22 different sizes. It can heat even large structures such as office buildings, hotels, and apartment buildings. It can also handle large volume hot water supply for clubs, restaurants, apartments and similar places.

For A. I. A. folder on this new unit, please write directly to us or phone nearest G-E Air Conditioning dealer. He has the complete G-E line. That makes his showroom headquarters for automatic heat and air conditioning. And he has engineers assigned to cooperate with you.

General Electric Co., Air Conditioning Dept., 570 Lexington Ave., New York, N. Y.

HOW MANY TELEPHONE OUTLETS ARE ENOUGH?



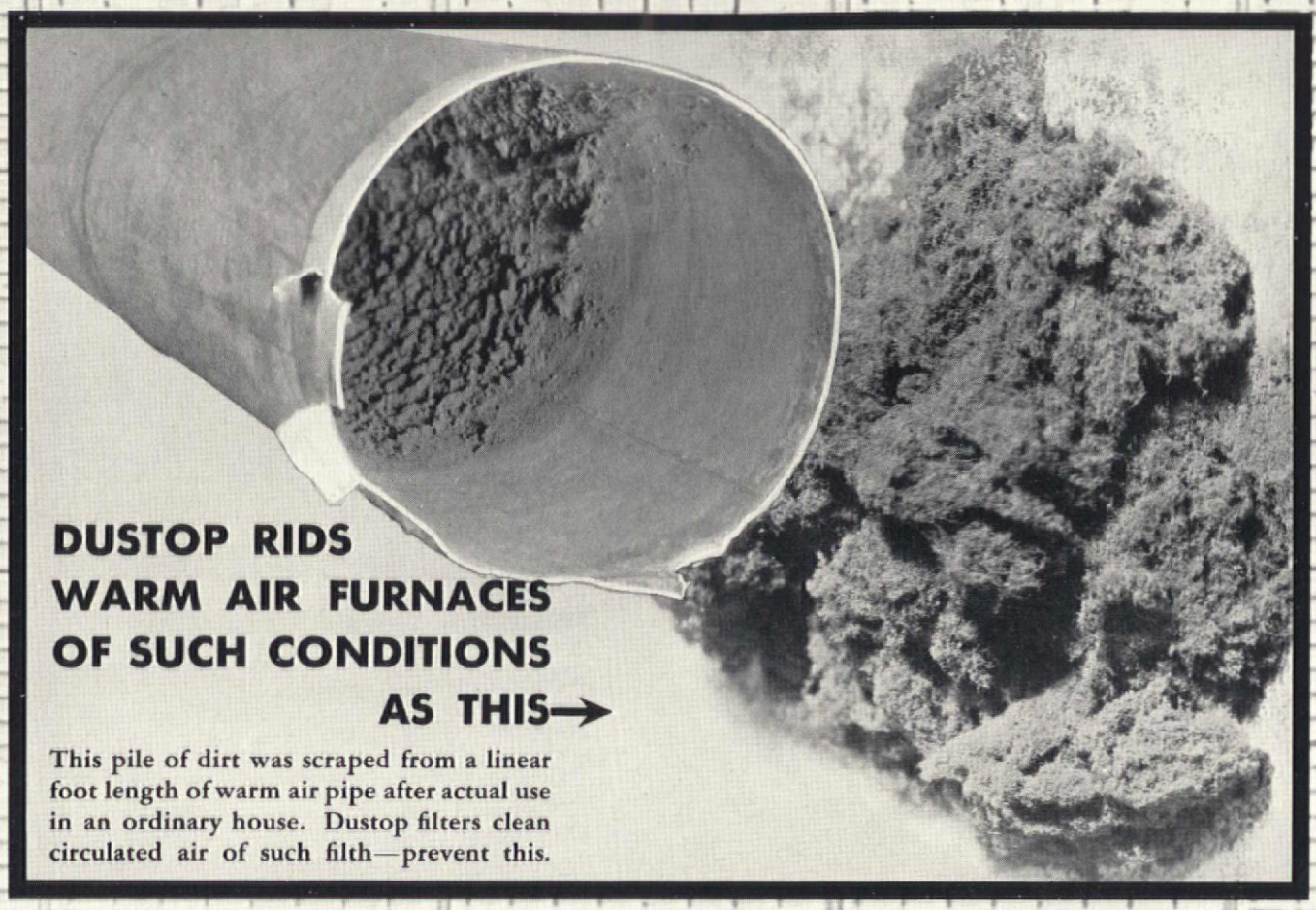
Six built-in outlets, including one in the basement, provide for telephone convenience in the residence of Mr. Jay A. Johnson, 2101 Wiggins Avenue, Springfield, Illinois. BULLARD & BULLARD, architects, *Springfield.*

It's sometimes difficult to determine what telephone facilities will best serve the owners of a residence you're planning. It's even harder to foresee how the demands of that household will change with the years.

That's where the specialized knowledge of your telephone company can be useful. Trained engineers will help you provide for the right number of telephones at the right locations. Perhaps they'll suggest recessed bell boxes, or intercommunication between master bedroom and pantry, or some other of the many types of telephone equipment designed for convenience and comfort. These are *immediate* needs.

They can advise you also in placing other telephone outlets to anticipate *future* requirements. Extra outlets and connecting conduit add very little to construction costs and add *nothing* to the monthly telephone bill until used. But they're *there*—ready—and whenever occasion arises, telephones can be plugged in easily and quickly — without tearing up floors or walls — without exposing wiring.

Your telephone company will co-operate with you at any time on any of your projects. No charge. Just call the Business Office and ask for "Architects' and Builders' Service."



DUSTOP RIDS WARM AIR FURNACES OF SUCH CONDITIONS AS THIS→

This pile of dirt was scraped from a linear foot length of warm air pipe after actual use in an ordinary house. Dustop filters clean circulated air of such filth—prevent this.

DUSTOP AIR FILTERS

for domestic warm air heating equipment

EFFICIENTLY CLEAN DUST LADEN AIR

MANY GRAVITY TYPES

Dustop filters are available as standard equipment on all types of warm air furnaces.

MANY BLOWER TYPES

Here is a typical Dustop filter installation in mechanical blower.

OWENS-ILLINOIS GLASS COMPANY - TOLEDO, OHIO

OWENS-ILLINOIS

DUSTOP AIR FILTERS

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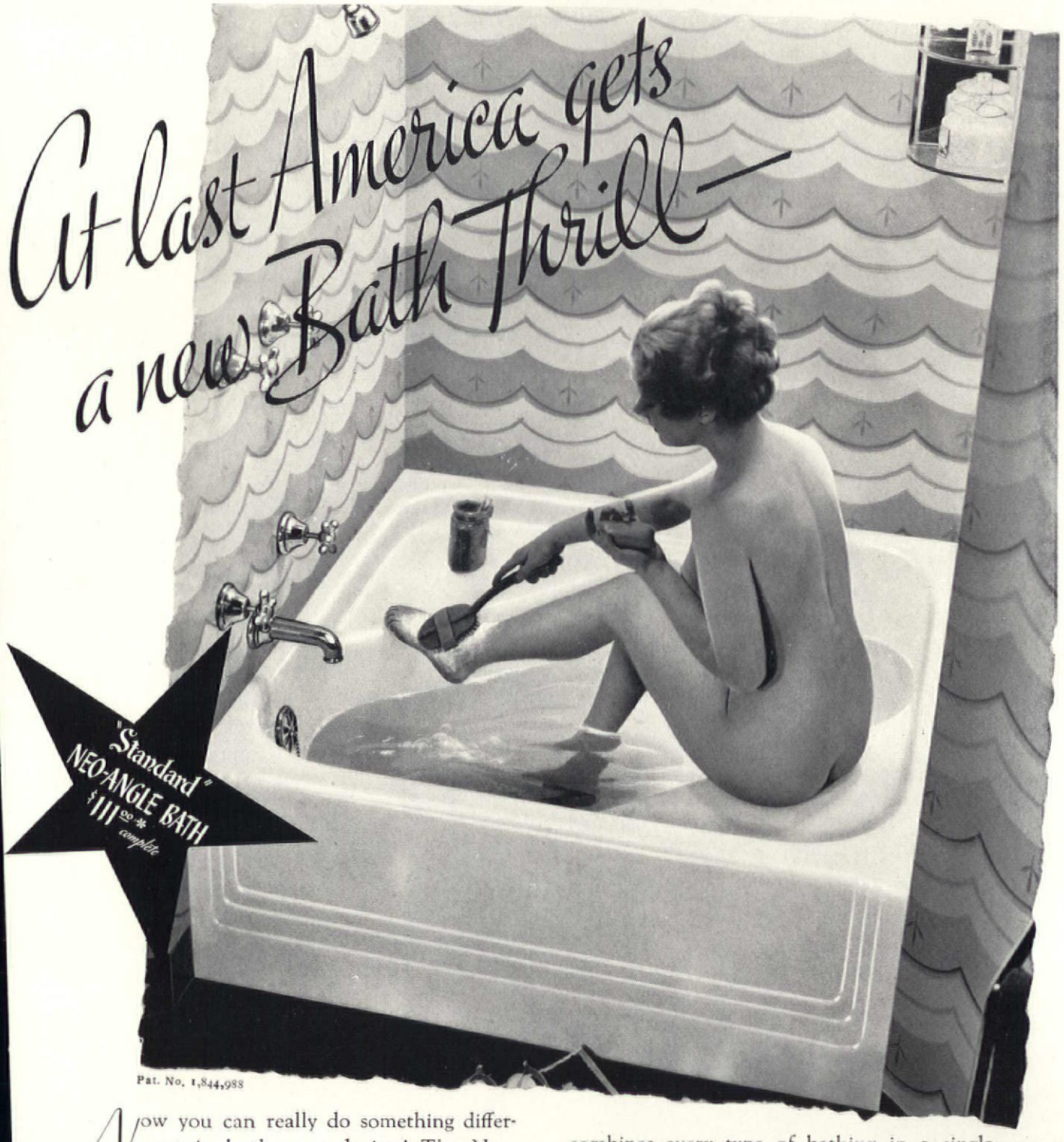
At last America gets a new Bath Thrill—



Pat. No. 1,844,988

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* Price includes bath in white regular enamel, complete with bath and shower fitting. Plus local delivery and installation by your registered master plumber. Pacific Coast Price $116.50. Time Payments Available.

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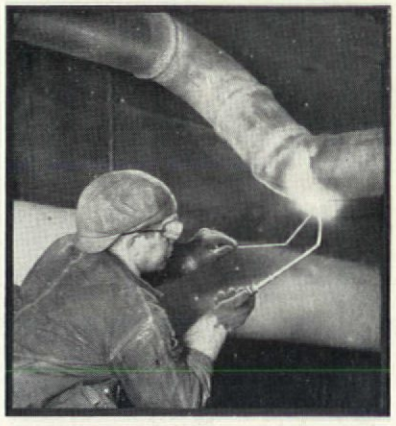

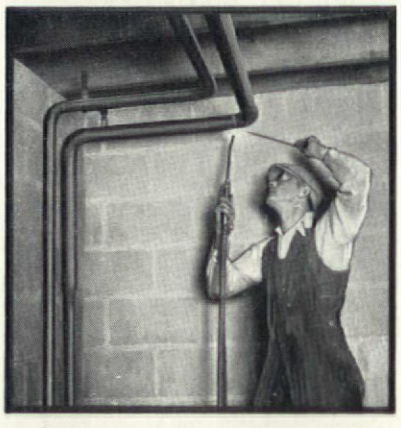

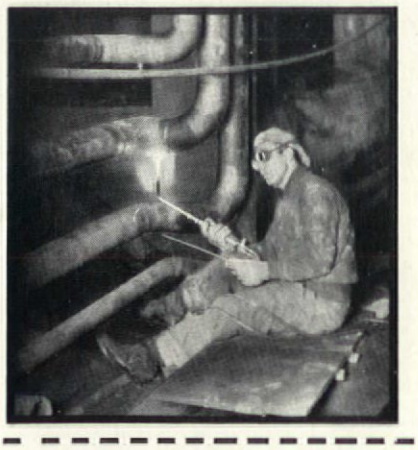

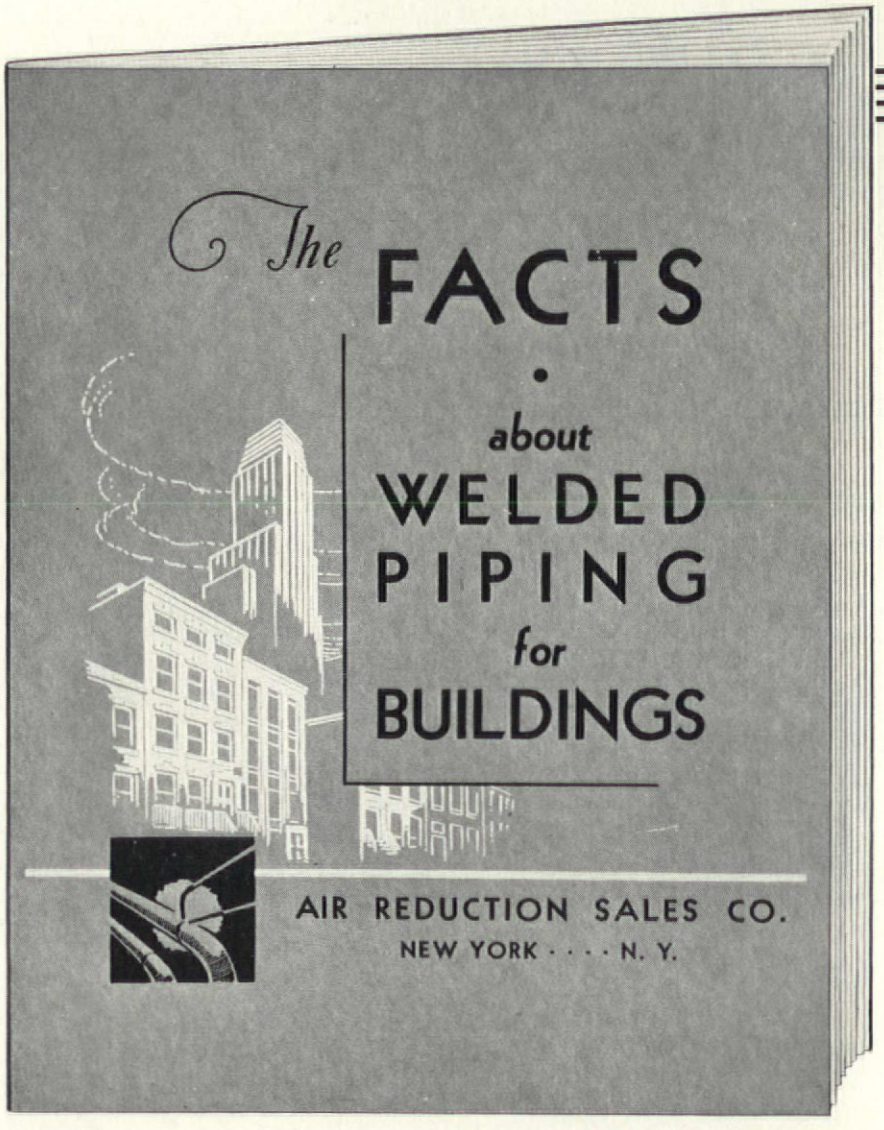

In concise form this booklet makes clear the decisive advantages in first cost and operating economies, of WELDED PIPING for buildings large and small . . . It includes a domestic heating system, laid out and itemized, for threaded piping and for oxyacetylene welded piping, giving material list and costs for each . . . Architects and Engineers will find the results of this comparison, as well as the other facts presented, both interesting and valuable. The COUPON will bring a copy of the booklet to you.

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Getting an ARCHITECT'S EYE-VIEW of 1934 building operations

THERE'S no predicting what kind of job will occupy the Architect's drawing board this year. It may be the remodeling of a cottage. Or it may be plans for a skyscraper. Or a large housing project.

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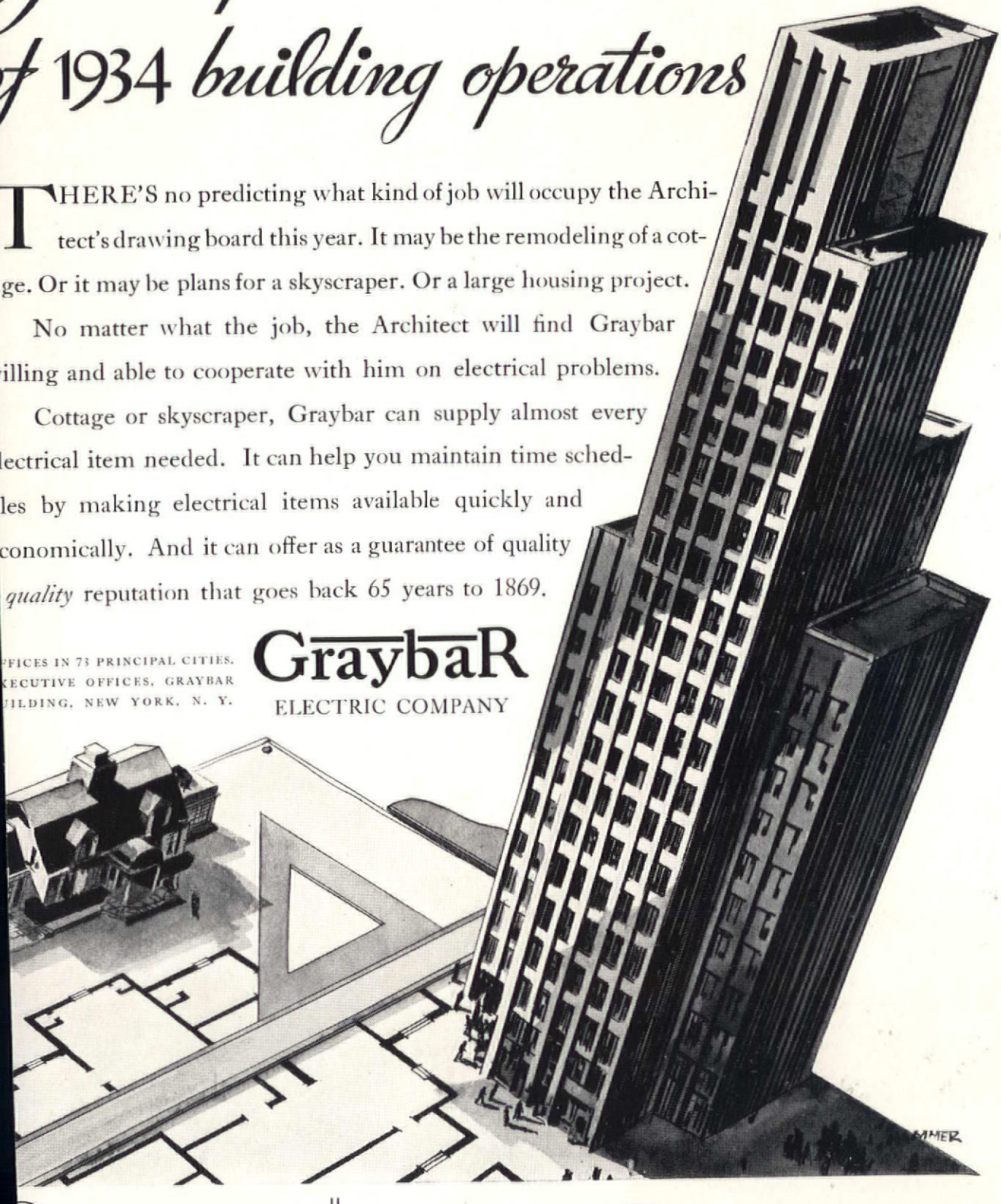
Cottage or skyscraper, Graybar can supply almost every electrical item needed. It can help you maintain time schedules by making electrical items available quickly and economically. And it can offer as a guarantee of quality a *quality* reputation that goes back 65 years to 1869.



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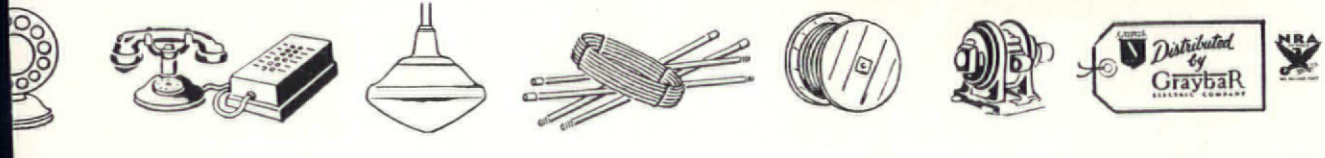

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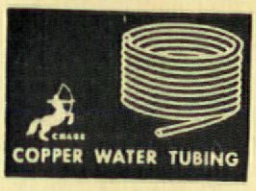

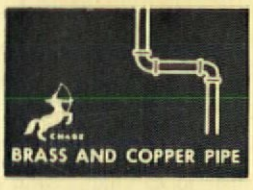

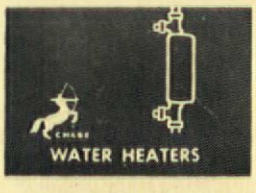

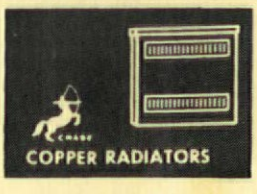

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